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ABSTRACT

A total of 130 applicants participated in this 6-week EDPA project held at four different universities. The content of the institute centered primarily around the following major categories: 1) philosophy of vocational education, 2) methods of teaching vocational education, 3) teaching the disadvantaged student, 4) psychology of the adolescent, 5) instructional aids and media, 6) classroom and laboratory management, 7) selection and organization of course content, 8) lesson plan development, and 9) professional ethics. An inservice program of seminars and individualized instruction was provided during the following school year. Evaluation of the institute, accomplished by means of participant and staff comments, evaluation of participants' teaching ability by their supervisors, and achievement tests, indicated that it was successful in its objectives. (An appendix, which constitutes one-half of the report, contains copies of material used during the preservice and inservice phases of the project: orientation material, instruction sheets, evaluation forms, and personnel data.) [Not available in hardcopy due to marginal legibility of original document.] (RT)

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FINAL REPORT OF THE 1969 EPDA PROJECT

"A Training Program to Prepare Industrial Personnel to Become Teachers for Trade and Industrial Education"

Conducted

July 14 - August 22, 1969

at

The University of Cincinnati

Kent State University

The Ohio State University

The University of Toledo

Sponsored By

United States Office of Education

Bureau of Educational Personnel Development

In Cooperation With

The Ohio Department of Education

Division of Vocational Education

August 30, 1970

SP004462

PREFACE

Recruiting and preparing qualified teachers for the classroom has been a monumental task facing educational administrators down through the years. This problem, which seems to be prevalent in all disciplines, is especially critical in the specialized area of trade and industrial education. This condition exists primarily because:

1. Qualified personnel who possess the technical skills are in critical demand by both industry and schools offering trade and industrial education programs and
2. The majority of teachers who begin teaching in trade and industrial education do not have a baccalaureate degree, but instead have only the technical skills of their past occupation and thus their professional preparation as a teacher is limited.

To alleviate the beforementioned problems of recruitment and preparing the craftsman to assume the responsibilities of the high school classroom, the State Department of Education, Division of Vocational Education, in cooperation with the U. S. Office of Education, Education Professions Development Act, developed and conducted a pilot program of teacher education for trade and industrial education personnel.

Through the combined efforts of the instructional staffs at the University of Cincinnati, Kent State University, The Ohio State University and University of Toledo, a two part program consisting of a six-weeks pre-service institute and a two year in-service teacher education program was developed. The purpose of this document is to describe and evaluate the proceedings of Part I (the pre-service institute) and Part II (the first year in-service teacher education program). The material contained in this report has been made possible through the efforts of the EPDA Teacher Educators at each of the four participating universities, and the Director-Coordinator of the project.

It is the sincere desire of the EPDA staff that the material contained in the following pages will do more than describe and evaluate the proceedings of the July 14 - August 22, 1969 Institute, but more than that, will become an effective document which will prove beneficial to all educators who desire to improve the quality of trade and industrial education personnel.

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PART I

INTRODUCTION

Part I

INTRODUCTION

RATIONALE FOR PERSONNEL DEVELOPMENT NEEDS

Expansion of Vocational Education

The recent rapid growth of vocational education in Ohio and the greater anticipated growth in the immediate future place the considerable challenge before educators of providing high quality vocational programs for the youth of Ohio. This challenge confronting vocational education results from a tremendous acceptance of this type instruction by the people of Ohio. Through the efforts of vocational education leaders and legislators, coupled with the strong approval by the populace for such instructional programs, legislation mandating vocational education for every Ohio student desiring it has become a reality.(1)

The acceptance of vocational education and an awareness of what it can provide for youth has produced a tremendous increase in facilities and enrollment. The joint vocational school concept has arisen in an attempt to meet the need for the vocational education facilities to carry out the greatly expanded instruction. Already there are fifteen joint vocational schools in operation throughout Ohio to serve multi-districts and/or county areas. A total of 34 such joint vocational schools have been proposed with 20 of them

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[1] Revised Code of Ohio Law, Sec. 111.08 Vocational Education, establishes fact that "each school district is required to establish and maintain a vocational education program adequate to prepare pupils for an occupation.

having been allocated the financial resources to continue operation or to work towards future operational condition.

Also, additional facilities for vocational programs are being provided in the comprehensive high schools of many of the district, city and metropolitan school systems across the state either by developing new space for laboratories and classrooms or remodeling existing structures to house the programs.

The enrollment of vocational education students in programs is similarly increasing with such extreme rapidity that it has become a problem to staff and administer programs to meet this demand. For example, the Division of Vocational Education of the State Department of Education has reported the student enrollment and professional personnel figures shown below.(2)

TABLE I

Enrollment Figures For All Vocational Programs in Ohio

	1963	1967	1970*
High School	67,000	144,000	208,000
Adult	92,000	150,000	300,000
Technical	370	3,000	30,000
Disadvantaged Youth	---	4,000	31,000

*projected figures.

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[2] Data supplied by the Division of Vocational Education, State Department of Education, Columbus, Ohio.

A more specific and immediate concern of trade and industrial education is that of the tremendous increase in the number of students enrolled in high school preparatory programs and the expansion of the number of reimbursed units under the school foundation law of Ohio.(3)

TABLE II

Enrollment for High School Preparatory Programs

1962-63 school year	6,266
1965-66 school year	11,250
1967-68 school year	17,717
1969-70 school year*	23,237

*projected figures.

TABLE III

Units Assigned

1962-63 school year	321.39
1965-66 school year	536.31
1967-68 school year	802.73

*Practically each unit assigned means that an additional teacher will be required for the classroom.

With such accelerated growth of vocational education resulting from the joint efforts of vocational leaders and the phenomenal acceptance by the residents of Ohio, there emerges the immediate problem of how teacher education in trade and industrial education can adequately recruit and train the required large number of new teachers.

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[3] Data supplied by the Division of Vocational Education, State Department of Education, Columbus, Ohio.

The Need for Securing Trade Competent Teacher Personnel

With the anticipated increase in the number of students and programs resulting from the present and expected development of the joint vocational schools along with the continued expansion of vocational education in comprehensive high schools and secondary schools solely concerned with vocational training, one immediate need is that of recruiting additional teaching personnel for trade and industrial education. The problem of recruiting personnel in T & I education has been one that has constantly confronted educators. Grant Venn placed emphasis on this fact when he stated:

> "One of the greatest handicaps to the improvement and expansion of vocational and technical education is the desperate shortage of qualified teachers and administrators. Except in vocational agriculture and home economics, there is a noticeable lack of teacher preparation and in-service training programs and also difficulty in recruiting well educated individuals with competency in a relevant occupational skill. . ."(4)

Past practices of securing vocational teachers are not adequate in producing either the quality or the quantity of personnel required to train youth for entry into a technological society. There have been four major avenues followed in the past in securing teacher personnel for trade and industrial education. These avenues have led to (1) retired or near retirement skilled craftsman, (2) retired military personnel, (3) individuals possessing a baccalaureate degree in industrial arts and/or other special or adademic fields, and (4) individuals who are employed in a skilled or technical occupation but desire a change to vocational teaching in a trade and industrial education program.

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[4] Venn, Grant. Man, Education and Work--Postsecondary Vocational and Technical Education, American Council on Education, Washington, D.C., 1964.

Limitations are found with individuals from any one of the four sources of personnel. The retired craftsman at or near the end of his career in industry may have a somewhat difficult time adjusting to the demands of teaching at the secondary level and often times finds it different to cope with behavior of late adolescents. The retired individual may also be resistant to the pre-service and continued program of in-service education necessary to transform him as an industrial worker to one who can impart the facets of manipulative skill and related technical knowledge.

Retired military personnel during their active career have been concerned primarily with the training of individuals that resulted in an end product of one who possessed a narrow range of high degree skill that promoted and supported the effort of a highly complex organization geared toward the maintenance of national defense. The training necessary to develop an efficient defense machine requires by its very nature a highly structured program that involves needed regimentation and stringent disciplinary measures and consequently is not concerned with societal needs of youth. However, the retired military person who assumes the position of trade and industrial teacher must attempt to develop youth with not only the competency to enter the labor force but also to function as a worthy member of society.

The individual who possesses a baccalaureate degree in industrial arts education and/or other special education or general academic fields has often obtained a number of years of industrial experience, if any, in a somewhat piecemeal fashion. The college or university graduate may have gained an industrial occupation background by working prior to his entrance to college and between academic years in the summer. This manner of gaining work experience gives the individual a required quantity of experience but lacks the developmental quality, recency, and continuity of continued employment for several years.

In addition to the above limitations of personnel, there is one common limitation. The relevancy of their particular work experience to the specific programs of trade and industrial education they would be employed to teach is frequently remote.

The last major avenue leading to a source of the trade and industrial teacher is one of attracting and qualifying persons presently employed in skilled and technical areas that have a training program counterpart at the secondary level of education. Obviously, these potential teacher personnel may have some, if not all, the limitations cited for personnel from other sources, but vocational trade and industrial education is dependent on this method of securing teachers.(5) Those who are pursuing industrial type careers and are recruited for a teaching situation have not only the competence of their particular occupation but also are of an age that allows them to adjust to the demands of the teaching situation and are receptive to pre-service and in-service education that helps mold them into highly successful teachers.

In order for vocational trade and industrial education in Ohio to

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[5] Beatty, H. O., "Report of Analysis of Sources of Trade and Industrial Teachers," reported in A Report of a National Research Planning Conference, Trade and Industrial Teacher Education, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio, 1966.

meet the increased demand for teachers, it will become necessary to recruit teacher personnel from all possible sources that have been described. Personnel will have to come from retired military sources, those who are retired or near retirement in trade or technical occupations and those who have a baccalaureate degree in related and non-related fields. Although limitations prevail among these sources of potential personnel, it has become imperative that all possible sources of personnel be investigated to develop the best teacher force available for trade and industrial education. However, it is the individual that is presently employed in a skilled or technical position that will come closer to possessing the qualities an individual needs in conducting a program of trade and industrial education.

The Immediate Educational Need

The need then becomes one of first recruiting the necessary personnel who possess the experience and competence in the skilled or technical occupations of vocational trade and industrial education. Next, provision must be made for effective teacher education which will prepare the teacher to accept positions of responsibility in trade and industrial classrooms.

Present Pattern of Pre-Service Training For Trade and Industrial Personnel in the State of Ohio

(Background Information)

Present day practices of pre-service trade and industrial education in the state are carried out on a one-week basis that imparts a basic philosophy and organization of the vocational education program that exists in Ohio. Additional objectives of the one-week workshop include introductory experiences in various teaching methodologies, in planning techniques, in the development and the employment of various instructional aids and in the management and control of the laboratory and classroom situation. The limitation of this pre-service training is its brief duration and lack of depth.

The objectives stated above are appropriate for the beginning teacher, but the brief exposure of the prospective teacher to each area is too limited to be of significant value to him. Considerably more emphasis should be placed on the same instructional objectives of previous pre-service trade and industrial workshops plus some emphasis upon new and important aspects of teaching.

Also, because of the importance of the human interaction process in teacher-pupil situations, the new teacher needs to be exposed in depth to an understanding of the psychological and physiological development of the adolescent and how he relates with his peers and adults in today's society.

Another need of the potential teacher, briefly touched upon in the one-week workshop, is the opportunity to teach and employ new innovations in the process and technique of instruction (e.g., simulation and microteaching). New developments such as simulation, microteaching and the use of video taping techniques offer the potential of improving the efficiency (in terms of numbers reached and time required by each teacher educator) and the effectiveness (in terms of performance level achieved by each prospective teacher). Other facets of the instructural program that receive only token emphasis is the development and use of instructional aids.

Present Pattern of In-Service Teacher Education For Trade and Industrial Personnel in the State of Ohio

(Background Information)

Present practices of in-service trade and industrial teacher education result in the various teacher educators from Kent State University, University of Toledo, University of Cincinnati, and The Ohio State University conducting observation and conference sessions on a one to one ratio with trade and industrial teachers throughout the state. In more recent years teacher educators have grouped teachers by level of service in order to more efficiently utilize their time. Yet minimum size programs and remotely situated schools still demand an individual session with the teacher educator on an approximate bi-weekly basis. In addition to the observation and conference techniques conducted by the teacher educator, the specific problems isolated during the observation period and jointly agreed upon by trainer and trainee as of immediate concern are usually treated by having the teacher complete a study guide assignment designed to explore his particular problem and give insight in dealing with future problems of this nature. These assignments, viewed as a device that will strengthen an individual's performance, are usually completed on the teacher's own time. The uniqueness of this part of in-service education is that not all teachers have identical problems at the same time and study guides and assignments can be utilized on an independent basis as the need arises.

One serious disadvantage to this practice of in-service education is that the teacher must complete the study guide assignment on his own time and may do only a minimal amount of work in order to satisfy certification requirements for the following school year. It is assumed that the teacher educator observes the beginning teacher in a natural or realistic situation and has the ability and experience to accurately pin-point the specific problems that confront the new teacher. However, it may be a rather artificial if not contrived situation that is being observed and teacher educators may lack the necessary insight to distinguish intangible problems involved in the complex process of the teacher-learner situation.

PART II

OPERATION OF THE PROGRAM

Part II

OPERATION OF THE PROGRAM

Planning Phase

The planning phase of the EPDA Project was conducted jointly through the efforts of:

1. State Director of T & I Education
2. EPDA Director Coordinator
3. EPDA Staff Members from the participating universities
4. Teachers in Vocational Programs

State Director of T & I Education

The State Director was extremely valuable in the planning phase of the project. His duties were primarily administrative in nature. Listed below are the functions he served in the planning phase.

1. Preparing project budgets.
2. Acquiring staff personnel.
3. Preparing legal contracts with the participating universities.
4. Orientation meetings with State staff personnel.
5. Endorsing and publicizing the EPDA Project throughout the State of Ohio.
6. Conducting State-wide survey to determine specified job vacancies.

Director Coordinator

The overall coordination of the project was the direct responsibility of the Director Coordinator. During the planning phase, his major responsibilities were:

1. To develop plans for the recruitment of teacher personnel.
2. To organize the six weeks pre-service institute.
3. To organize the in-service training program.
4. To coordinate the training university with instructional personnel at each of the participating universities.

During the planning phase, the director coordinator's major responsibility was to publicize the project and to inform local administrators and vocational personnel as to its function and method of operation. Since one of the criteria for the selection of participants was a full time teaching assignment for the school year 1969-70, in an approved in-school preparatory trade and industrial program, the responsibility of hiring potential teachers was the direct responsibility of the local administration. Because of this, the local administrator was the person to whom the project publicity was directed. Following are the five steps which were utilized to inform the local administration:

1. A survey was conducted through the efforts of the State Director of Trade and Industrial Education to determine which schools would be hiring new teachers.

2. The administrators of the above schools were informed by means of a letter and a brochure explaining the proposed project. (See Appendix A-1.)
3. The director coordinator made personal visits in selected areas of the state to inform local administrators. The selected sites were chosen where it was determined (by the survey) a large influx of teachers would be needed.
4. Program presentations were made at State-Wide vocational meetings.
5. A follow-up letter explaining the program operation and the importance of the project was sent to each vocational director and supervisor in the State of Ohio (See Appendix A-2.) Vocational teacher-educators as part of their in-service responsibility, informed teaching and supervising personnel at the local school level as to the merits of the project.

EPDA Staff Personnel

The EPDA staff members' major responsibility in the planning phase of the project was centered in the area of curriculum and instruction. A concerted effort was made to hire existing staff personnel in order to capitalize on experience and expertise. A total of seven planning sessions were held to organize and plan the proposed institute. In general, the objectives of the planning session were to:

1. Orientate the EPDA and State Staff to the operation and procedures of the EPDA Project.
2. To determine relevant topics and presentations, and to outline the scope and sequence of each.
3. To identify outstanding consultants and lecturers.
4. To determine appropriate student activities and assignments.
5. To identify new and proven methods for presenting materials.

Vocational Teachers

An integral part of the planning of the EPDA Institute was a study conducted to determine the competence considered important by teachers currently employed in vocational education. The study was limited to teachers in their first two years of teaching, because it was felt, that teachers who recently completed the required one-week workshop would give a valid evaluation of their experience, and also, could give an accurate appraisal of the relevancy of the topics presented to the needs experienced in their teaching. Those surveyed, in most cases, had no previous college training, however, they were well prepared in their speciality with a minimum of a four year apprenticeship plus three years of recent journeyman experience, and a high school diploma.

Located on the following pages is the completed study in its entirety (TABLE IV).

The results obtained from this study played a very significant role in determining priorities for the institute presentations.

TABLE IV

The study consisted of a questionnaire with eighty-seven questions pertinent to problems, techniques, knowledge, and abilities of instructors in Trade and Industrial Education.

Each instructor that received a questionnaire was asked to rate each question as to importance. The questions were to be rated as follows:

Most important................Four
Very important................Three
Important.....................Two
Not important.................One

Eighty two questionnaires were returned which would make a total of seven thousand, one hundred and thirty-four responses.

The questions are placed according to rank with the first number being total points allotted to that particular question. The second number is the average score each question received. The questions will be broken up into four groups. The top quarter included the following questions:

279	3.40	Abilities necessary to develop student attitudes toward safe practices and safety-consciousness in job performance.[1]
276	3.37	Abilities necessary to stimulate and maintain interest throughout the instructional process.

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[1] U.S. Office of Education, Teacher Competencies in Trade and Industrial Education: 1960 (Washington: U. S. Government Printing Office) pp. 17-21.

274	3.34	Abilities necessary to establish and maintain acceptable standards of discipline.
274	3.34	Abilities necessary to develop appreciation of good workmanship.
272	3.32	The knowledge or understanding of necessary methods and/or techniques of teaching related information.
272	3.32	Abilities necessary to motivate students to acquire skill and knowledge.
271	3.30	Abilities necessary to demonstrate the skills of the trade.
264	3.22	Abilities necessary to prepare a workable lesson plan.
262	3.20	Abilities necessary to organize and develop a curriculum around useful and meaningful units of experience that relate the instructional program to industrial practices.
260	3.17	The knowledge or understanding of necessary procedure for developing an instructional plan.
259	3.16	The knowledge or understanding of necessary acceptable standards of workmanship for trade entrance.
258	3.15	Abilities necessary to teach related information and/or manipulative operations using the four-step plan of instruction.
257	3.13	Abilities necessary to select appropriate jobs and other learning activities as a vehicle of instruction.
256	3.12	The knowledge or understanding of necessary procedures for evaluating and recording student achievement.
256	3.12	Abilities necessary to combine jobs, operations, and related information into a course of study.
255	3.11	The knowledge or understanding necessary of how a learner acquires skill and knowledge.
255	3.11	Abilities necessary to assist students in identifying and solving problems.
250	3.05	The knowledge or understanding necessary for good housekeeping practices applied to the school shop and classroom.

250	3.05	Abilities necessary to utilize effective questioning as a teaching tool.
249	3.04	The knowledge or understanding of necessary principles of individual differences in the learning process.
249	3.04	Abilities necessary to assemble the necessary tools, materials, and information for the teaching process.
249	3.04	Abilities necessary to develop student attitudes for the care and conservation of equipment and materials.

The second quarter included the following questions:

248	3.02	The knowledge or understanding of the necessary role of the school in helping students reach maturity physically, socially, and emotionally.
248	3.02	Abilities necessary to maintain progress charts and records of individual student achievement.
248	3.02	Abilities necessary to work as a member of a professional team in planning a suitable educational program for the vocational student.
248	3.02	Abilities necessary to work effectively with supervisors and administrators.
247	3.01	Abilities necessary to place emphasis on student learning rather than subject matter.
246	3.00	The knowledge or understanding of necessary State certification requirements for trade and industrial teachers.
246	3.00	Abilities necessary to select and use instruction materials and references suited to the student's level and interest.
245	2.99	Abilities necessary to organize procedures for the maintenance of tools and equipment.
245	2.99	Abilities necessary to use a wide range of techniques, materials, and methods in teaching.
245	2.99	Abilities necessary to arrange for a sequential development of skills and concepts.

244	2.98	The knowledge or understanding of necessary sources of procurement and methods of using special educational material, audio-visual aids, and other devices for increasing teaching efficiency and appeal.
243	2.96	The knowledge or understanding of necessary procedures to be followed in developing a curriculum in trade and industrial education.
242	2.95	Abilities necessary to utilize audio-visual aids effectively in the shop or classroom.
240	2.93	The knowledge or understanding of necessary principles of human relations applied to student, faculty, and community relations.
239	2.91	Abilities necessary to recognize the individual differences in physical, mental, and social traits of each student and make provisions for them.
237	2.89	Abilities necessary to effectively express a point of view orally or in writing.
237	2.89	Abilities necessary to build community support for the program of trade and industrial education.
236	2.88	The knowledge or understanding of necessary principles of school shop management.
235	2.87	The knowledge or understanding of necessary responsibility of the vocational teacher in the guidance program.
235	2.87	The knowledge or understanding of necessary principles of learning applied to teaching trade and industrial subjects.
233	2.84	Abilities necessary to construct objective tests to measure student's achievement.
231	2.82	Abilities necessary to organize material for directed study.

The third quarter included the following questions:

230	2.80	The knowledge or understanding of necessary Federal, State, and local laws pertaining to vocational trade and industrial education.

230	2.80	The knowledge or understanding of necessary legal provisions and regulations governing the employment of student-learners.
229	2.79	The knowledge or understanding of necessary mechanics of class organization and student personnel management.
229	2.79	Abilities necessary to select and order special materials, supplies, and equipment.
229	2.79	Abilities necessary to select and evaluate text and reference materials to meet course objectives.
228	2.78	Abilities necessary to analyze a trade for its related information.
227	2.77	The knowledge or understanding of necessary purposes, services, locations, and the representatives of organizations in the community concerned with the placement or utilization of the produce of the trade and industrial education program.
227	2.77	Abilities necessary to lead a group discussion.
226	2.76	Abilities necessary to organize an effective program of placement and follow-up for trainees.
222	2.71	Abilities necessary to interpret trade and industrial education program to fellow educators and to the community.
221	2.70	Abilities necessary to maintain proper business records and accounts.
221	2.70	Abilities necessary to prepare information sheets.
221	2.70	Abilities necessary to prepare job and operation sheets.
221	2.70	Abilities necessary to develop procedures for determining employment opportunities and industrial needs.
220	2.68	Abilities necessary to evaluate the effectiveness of teaching aids and adjust them to the demand of the teaching situation.
219	2.67	Abilities necessary to recognize and use "out of school" situations and materials to achieve the teaching objective.
219	2.67	Abilities necessary to prepare assignment sheets.
219	2.67	Abilities necessary to analyze a trade for its basic operations.

217	2.65	Abilities necessary to define objectives of trade and industrial instruction.
217	2.65	Abilities necessary to interview and counsel a student.
214	2.61	Abilities necessary to engage in active research for the improvement of the operating program.
213	2.60	The knowledge or understanding of necessary reference materials, professional literature, and journals pertinent to vocational trade and industrial education.
213	2.60	Abilities necessary to solicit the support of and use a wide range of community resources, both human and material.
213	2.60	Abilities necessary to win the trust and approval of preparatory students.

The fourth quarter included the following questions:

210	2.56	The knowledge or understanding of necessary relationship between vocational trade and industrial education and the other phases of the educational program.
209	2.55	The knowledge or understanding of necessary professional groups in vocational education and the services they provide at the national, state and local levels.
207	2.52	Abilities necessary to compile and use occupational information and data in a counseling situation.
206	2.51	The knowledge or understanding of necessary social, economic, and technological changes and their implications for trade and industrial education curriculum revisions.
205	2.50	Abilities necessary to formulate and support a philosophy of vocational education.
203	2.48	The knowledge or understanding of necessary current trends in trade and industrial education as reflected in the literature.
203	2.48	Abilities necessary to devise instruments for the evaluation of instruction.
200	2.44	Abilities necessary to prepare and submit objective reports.

198	2.41	The knowledge or understanding of necessary basic philosophy of public education.
195	2.38	The knowledge or understanding of necessary role of advisory committees in developing programs of trade and industrial education.
195	2.38	The knowledge or understanding of necessary role and importance of extracurricular activities in the development of trade and industrial student.
195	2.38	Abilities necessary to work effectively with community groups.
193	2.35	Abilities necessary to present information graphically.
192	2.34	The knowledge or understanding of necessary techniques for proper maintenance and storage of teaching aids and audio-visual equipment.
189	2.30	Abilities necessary to interpret the finding of studies which have bearing on the educational, psychological, and social problems of trade and industrial students.
189	2.30	Abilities necessary to provide leadership in group activities.
186	2.27	The knowledge or understanding of necessary important features and maintenance requirements of projection and duplicating equipment.
186	2.27	The knowledge or understanding of necessary groups to be served and the types of programs to be organized for preparatory classes.
168	2.05	The knowledge or understanding of necessary trade union movement and its organizational patterns.

The administrative structure of the EPDA Project was a significant factor in the planning phase. The director coordinator, being directly responsible to the State Director of Trade and Industrial Education was able to initiate change and to find solutions to problems, which are inherent in a project affecting total state patterns.

PARTICIPANTS

Recruitment

One of the disappointing facets of the entire project was the minimal response of initial applications received prior to the pre-service institute.

During the planning stages of the project, the State Director of Trade and Industrial Education and the EPDA Director Coordinator established a quota at each participating university based on a survey which projected the teacher education needs in all areas of the State.

Although a concerted effort was made via personal interviews with selected vocational directors, numerous telephone conversations, brochures, letters of information from the State Director to every local school anticipating new staff members, the resulting applications were far below the anticipated demand.

The EPDA staff in analyzing the results for the limited responses listed the following reasons:

1. The EPDA Project was a new approach to teacher education and the local administrators were not completely knowledgeable of the new pattern and thus did not inform or encourage their new teachers.
2. Many prospective teachers were reluctant to leave industry six

weeks prior to the opening of school, which was required of them in order to attend the pre-service institute.

3. Recruitment programs at the local level were not effective in attracting qualified people from industry.
4. The existing teacher education pattern gave the prospective teachers an alternative pattern to choose and of which many decided upon because of a much shorter pre-service requirement.
5. The early starting date of the pre-service institute required the teacher to be under contract much earlier than was formally the practice. Also, because of the many school systems entering new programs, the local administrators were still conducting interviews for prospective teachers and thus had not, at the July 1, 1969 deadline, made their final selections.

Application

The EPDA Participants were required to make a formal application for evaluation of their work experience by the head teacher educators located at each of the four universities participating in the program. Those candidates who exhibited a strong occupational background and who met other criteria as outlined in the State Department of Education Trade & Industrial Educational Manual of Operation were given a list of teaching positions in his trade or technical area that would be available September, 1969. It was the responsibility of the candidate to secure employment in a Vocational Trade and Industrial Education Program prior to July 1, 1969. Upon confirmation of eligibility from the head teacher educators and obtaining a teaching assignment, the participant made application for admission to the program. (See Appendix A-3; A-4.)

Each Vocational Director in the State of Ohio was sent a supply of temporary application blanks from the Director Coordinator of the project. After interviewing and hiring teachers for available positions, the local administrators or teacher completed the temporary application form and returned it to the Director Coordinator. After receiving the temporary application form and confirming the employment status of the perspective candidate, he was sent an official application form. Participants were selected in the order in which the applications were postmarked at the respective universities. The final selection of the applicants to the institute was determined by a screening committee comprised of representatives from the four cooperating universities and the State Department of Education. (See Appendix A-5.) Upon receipt of the application form from the participant, letters of acceptance were sent from each of the participating universities. (Appendixes A-6 and A-7 contain two sample letters.)

Criteria Used for Selecting Candidates

To be eligible for the pre-service and in-service program, the participants must:

1. Have had a teaching assignment for the school year 1969-70 in an approved in-school preparatory trade and industrial education program.
2. Have qualified to hold a temporary vocational certificate for the day trade in-school program in the State of Ohio.
3. Have exhibited a positive desire to enter into and continue teaching in the field of Vocational Trade and Industrial Education.
4. Never attended a previous pre-service workshop in Vocational Education.

Although the specific criteria listed above tended to limit the number of applicants eligible for admission, it did assure a homogenus grouping in terms of interest and qualifications. Specifically, the criteria was intended to:

1. Attract tradesmen who had expertise in a

specific trade or occupation, but who lacked a baccalaureate degree.

2. Attract persons who had no previous teaching experience.
3. Attract persons who had not attended previous trade and industrial education workshops.

The project was designed to accommodate 150 participants. The distribution of participants at each of the participating universities was determined by the State Department of Education, Division of Vocational Education. Quotas were established for each university based on the anticipated need for teaching personnel. Following are the established quotas:

TABLE V

Established University Quotas

University of Cincinnati (Southwestern section)	25 Participants
Kent State University (Northeastern section)	50 Participants
The Ohio State University (Central and Southeastern)	25 Participants
University of Toledo (Northwestern section)	50 Participants

The actual enrollment at each university was:

TABLE VI

Actual University Enrollments

University of Cincinnati	23 Participants
Kent State University	47 Participants
The Ohio State University	25 Participants
University of Toledo	35 Participants

The original deadline date set for applications to the workshop was June 15, 1969. However, because of the limited response to the project it was decided to extend the deadline date to July 1, 1969. The staff had anticipated enrollment far exceeding the predetermined quotas, however, this was not the case. Enrollments at each institute as of July 1, 1969 was on the average 60% of the anticipated quota. At this time, it was decided to alter the criteria and to allow teachers who had up to one year of teaching, but who had not attended the required one week workshop make application on an alternate basis. This notification would allow an increase in enrollment, but also it provided a hetrogeneous grouping of participants in terms of teaching experience and background.

The EPDA Staff, in critically analyzing the selection criteria and recruiting procedure, enthusiastically endorse the following recommendations:

1. The original established criteria (mentioned earlier) for participant selection is excellent and should be continued.
2. That teachers who have had previous teaching experience even though it has been for only a few months should not be permitted into the program.
3. That the local administrator, since he is the key element in recruiting teaching personnel should be the

person to whom all program information and publicity is directed.

4. That the State Director of Trade and Industrial Education require as a condition of certification and employment that all new teachers must be in attendance at the six-weeks pre-service institute.
5. That recruitment meetings be held in selected areas of the State to inform perspective teachers of the necessity and operation of the new pattern.

Orientation Program

Staff Orientation and Involvement

A continued involvement of the EPDA staff at each of the participating universities was imperative to the success of the project. To that end, periodic meetings were handled by the Director-Coordinator. The major objectives of these meetings were to:

1. Orientate the staff to the aims and objectives of the program.
2. To identify content material.
3. To establish a uniform pattern of operation.
4. To prepare the pre-service agendas.
5. Discuss anticipated problems which might occur during the in-service phase and to offer possible solutions.
6. To gain insights and to share ideas concerning methods of handling in-service situations.
7. To identify competent lecturers.
8. To identify appropriate instructural activities and assignments for the participants.
9. To determine evaluation techniques for both the pre-service and in-service phases of the program.

In addition to the general meetings held, the Director-Coordinator visited each university to meet with other staff members to keep them abreast of developments and direction the project was taking.

Lecturer Orientation

In most cases, the approach used to orientate individual lecturers was the personal visit. This approach was the most effective because it gave the Director the opportunity to effectively present the project's objectives and to cooperatively outline material with the lecturer. In situations where it was impractical to make personal visits, a letter and/or telephone conversation was utilized. The effectiveness of some lecturer's presentations was limited because of improper orientation to the institute and its intended objectives. It was found that in the majority of cases where letters and/or telephone conversations were used, the topics presented were not focused on the intended objectives.

To alleviate the problem of improper orientation, it is suggested that a curriculum guide be developed by the EPDA staff prior to future institutes and copies of the curriculum guide be sent to all lecturers so that a more accurate orientation can be made. The curriculum guide should contain:

1. The objectives of the project.
2. A topical outline.

3. Student activities and assignments.
4. Textbooks provided.
5. Visual Aids available.
6. Background information on the participants.

In addition to receiving the curriculum guide, the lecturer should be required to submit a lesson plan covering the various topics he will be assigned to present. If the two above suggestions are followed in future institutes, pertinent information will be presented in a more meaningful and logical order.

Participant's Orientation

The participants initial orientation took place during the interview with the school administrator during the initial job interview. The orientation the participants received at this time was directly proportional to the knowledge of the project possessed by the interviewer. Prior to the institute, a project brochure and various forms were sent to local administrators to acquaint them with the proposed project. (See Appendix A-1.) At various intervals throughout the institute, the Director-Coordinator gave presentations at each of the participating universities. The first presentation at each university was an orientation program in which the total project was outlined and explained. After the presentation the participants were given ample time to ask pertinent questions concerning the project.

Assigning the responsibility to orientation to the local administrator as part of his initial interview with the prospective teachers was not an effective method of acquainting the teachers with the aims and objectives of the project. It was not effective primarily for the following reasons:

1. Some Directors had not received the program information because of communication problems within their systems and thus were not aware of the project.
2. The materials sent to the local Directors did not answer all questions which developed and because of this, the local Director made erroneous assumptions on important points.

The communication between the participant and the local Director indicated a definite weakness in the orientation procedure. It is suggested that a concerted effort be made during the recruitment phase to describe the project in detail to the perspective teacher prior to the initial interview with the local vocational director.

Proposed Orientation Program

The most economical and effective method of orientating the prospective teacher would be to conduct numerous general information meetings in selected communities throughout the State prior to the initial interview with the local Director. The responsibility for selecting particular locations in which to hold the meetings would be determined by the State Staff Supervisors because of their first hand knowledge of potential teaching vacancies. The responsibility for publicizing the meeting in the particular community and the details involved would be given to the local administrator. The program agenda would be the responsibility of the regionally located teaching education institution. The minimum topics covered at the meetings should be:

1. An explanation of the purposes of Vocational Education.
2. The types of programs available.
3. The teacher education pattern.
4. State certification requirements.
5. The EPDA Project.

Significant Effects EPDA Project Will Have On Involved Agencies

The teacher education program for trade and industrial education teachers in the State of Ohio is a triad organizational structure consisting of the:

1. State Department of Education, Division of Vocational Education (the teacher education program for trade and industrial education is assigned to the four participating universities through a contractural agreement with the State Department of Education.)
2. The public school systems employing vocational teachers.
3. The four regionally located State universities (University of Cincinnati, Kent State University, University of Toledo and The Ohio State University).

The proposed pattern, if adopted, from this pilot project will have a significant effect on all three of the above mentioned agencies because it will completely change the certification and teacher education pattern in the State for teachers who are teaching in the in-school preparatory high school programs.

Change in Certification and Teacher Education Pattern

The present pattern of teacher education requires a new teacher to teach on a temporary vocational certificate a total of four years. In each of the four years, the teacher must complete fifty (50) clock hours (six (6) quarter hours) of teacher improvement instruction. Thus, at the completion of four (4) years of pre-service and in-service teacher education, the teacher will have accumulated two hundred (200) clock hours of credit and then is eligible for a four (4) year vocational provisional certificate. The EPDA pattern shortens the time requirement to two (2) years, i.e., instead of the teacher teaching on a temporary certificate for four (4) years, he will be eligible for provisional certification at the completion of his second year of teaching. However, because of the extended length of the pre-service institute from one to six weeks, the contact hours with the teacher educator is greater than is presently possible under the one-week, four-year pattern. Thus, through the better utilization of the teacher educators during the concentrated institute, the amount of time the teacher is on temporary certification is reduced in half from four to two years. The overall quality of vocational trade and industrial education is greatly enhanced as a result of the cooperative efforts of the four State universities by the development of a more intensive and more relevant pre-service and in-service teacher education pattern. The boys and girls that come under the instruction of these better prepared teachers will have a better opportunity to enter the world of work and successfully progress to their fullest capabilities.

Effect on Local System

The EPDA pattern will also have a significant effect on the local school systems, which hire the teachers. In most local systems, the placement of the teacher on a particular salary schedule is determined by many factors, one of which may be the type of certification held by that teacher. Obtaining a provisional certificate in two years will thus affect the salary schedule for that teacher at the local level.

The six week pattern will require significant changes in the employment practices at the local level. Presently, many systems will not hire teachers on a temporary certificate until after August 1 in the school year that the teacher is scheduled to teach. To participate in the six weeks institute, the teacher has to be employed in the school system prior to the institute; therefore, he must be hired by the July 15 starting date.

Staff Specialization

The length of the pre-service institute, the variety of topics presented, and the amount of preparation demanded will require, out of necessity, the development of staff specialization. Present demands placed on vocational educators during the summer months (classroom teaching, special workshops, etc.) make it increasingly more difficult to utilize their services unless specialization takes place. If this specialization takes place, each staff member can concentrate his efforts on a relatively few areas of instruction and thus be more effective in his presentation.

TABLE VII

List of Participants
Teaching Area
School System Employed

The Ohio State University (Central and Southeast)

Castle, Gerald
Carpentry
Eastland J.V.S.

Culp, Gwendolyn
Cosmetology
Eastland J.V.S.

Daniels, Charles
Welding Sheet Metal
Muskingum J.V.S.

Deinzer, Leonard
Auto Mechanics
Muskingum J.V.S.

DeMell, Neale
Drafting
Tri County J.V.S.

French, Harold
Auto Mechanics
Morgan Local

Hall, Eugene
Welding
Paul Hayes Tech.

Harrison, Nancy
Dental Assistant
Eastland J.V.S.

Keir, Anna Lucile
Medical Assistant
Columbus Public

Manda, Anna
Cosmetology
Tri County J.V.S.

May, John D.
Auto Mechanics
Columbus Public

Miers, Frederick
Auto Mechanics
Marion City

Picklesimer, Jay M.
Auto Mechanics
Eastland J.V.S.

Price, Richard
Drafting
Heath

Primmer, James
Machine Trades
Tri-County J.V.S.

Roberts, Bernice
Cosmetology
Morgan Local

Shields, Charles, Jr.
Auto Body Repair
Tri County J.V.S.

Smith, Carl
Electricity
Eastland J.V.S.

Spangler, Paul
Printing
Muskingum J.V.S.

Stokes, James
Machine Trades
Eastland J.V.S.

Thornberry, Carl
Welding
Muskingum J.V.S.

Tritt, Johnny
Auto Mechanics
Delaware City

Willey, Carol
Cosmetology
Delaware City

Wilson, Edward L.
Carpentry
Muskingum J.V.S.

Wise, Barbara Ann
Nurse Assistant
Columbus City

TABLE VIII

List of Participants
Teaching Area
School System Employed

Kent State University (Northeast Section)

Anderson, Everett
Auto Mechanics
East Liverpool

Becvar, Donald
Printing
Cleveland East

Boyer, Elton
Carpentry
Wayne County J.V.S.

Chadwick, Daniel
Electricity
Knox County J.V.S.

Covert, Thelma
Cosmetology
Wayne County J.V.S.

Creekus, Angeline
Cosmetology
Oakwood

Ewald, Paul
Printing
Cleveland Glenville

Ewing, Paul
Drafting
Wayne Co. J.V.S.

Forster, George
Machine Trades
Bedford

Gang, Gordon
Machine Trades
Tuscarawas Valley

Geis, Robert
Drafting
Alliance

Grapes, Kenneth
Welding
Lake Co. J.V.S.

Harrison, Sallie
Health Occupations
Knox Co. J.V.S.

Herring, James
Machine Trades
Cleveland Thos. Edison

Hockman, Harry
Electronics
Admiral King

Horak, Thomas
Auto Mechanics
Barberton

Hoskinson, Homer
Drafting
East Liverpool

Hyde, Darwin
Building Maintenance
Pioneer J.V.S

James, Darrell
Welding
Fairless Local

Johnson, Dieter
Electricity
East Liverpool

Kalin, Patricia
Cosmetology
Parma Normandy

Kochert, Doris
Cosmetology
Hudson

Laituri, Melvin
Welding
Lake Co. J.V.S.

McMahel, Isabel
Cosmetology
Ashtabula Co. J.V.S.

McMillen, Harold
Auto Mechanics
Oakwood

Meade, George
Machine Trades
Pioneer JV.S.

Moberg, Marylee
Cosmetology
Hudson

Moonert, Helen
Dental Technician
Cleveland, Jane Addams

Moreland, Kenneth
Electricity
Canton Timken

Muth, Val
Electricity
Lake Co. J.V.S.

Neiss, Lynn
Auto Body
Wayne Co. J.V.S.

Oberstar, Frank
Painting-Decorating
Cleveland, Max Hayes

Oliver, Phyllis
Cosmetology
Knox County J.V.S.

O'Mara, Brian
Printing
Cleveland, John F. Kennedy

Peyton, William
Auto Body Repair
Mentor

Plance, George
Machine Trades
Wayne Co. J.V.S.

Ripepi, Carl
Printing
Cleveland John Adams

Scheck, Lawrence
Welding
Wayne Co. J.V.S.

Snow, Searl
Machine Trades
Lake Co. J.V.S.

Sorrick, Kenneth
Machine Trades
Pioneer J.V.S.

Stevens, Marvin
Auto Mechanics
Austintown

Swinford, David
Machine Trades
Oakwood

Szklarz, Edward
Drafting
Cleveland W. Tech.

Tanney, Cynthia
Dental Assistant
Wayne Co. J.V.S.

Walton, Bradford
Welding
Knox Co. J.V.S.

Yackin, Michael
Drafting
Parma Normandy

Yough, Kenneth
Machine Trades
Knox Co. J.V.S.

TABLE IX

List of Participants
Teaching Area
School System Employed

University of Toledo (Northwest Section)

Blair, Arnel
Machine Trades
EHOVE J.V.S.

Byroads, Arvon
Auto Body Repair
4 County J.V.S

Chesney, Richard
Drafting
Whitmer High School

Coughlin, Frank W.
Carpentry
Toledo-Cotter

Didion, Alice E.
Cosmetology
EHOVE J.V.S.

Dietrick, Jay
Auto Mechanics
4 County J.V.S.

Eby, Helen
Cosmetology
EHOVE J.V.S.

Elliott, Robert
Welding
4 County J.V.S.

Fields, Dewayne E.
Carpentry
Findlay High School

Fix, Ronald
Drafting
EHOVE J.V.S.

Ford, Gayanne
Dental Assistant
Penta Co. J.V.S.

Gould, Sylvester M.
Masonery
Toledo-Cotter

Grant, Helen E.
Cosmetology
4 County J.V.S.

Harris, Douglas D.
Commercial Art
Vanguard J.V.S.

Hersha, Edward
Electricity
4 County J.V.S.

Johnson, Wilford P.
Industrial Maintenance
4 County J.V.S.

Kessler, Eldon
Auto Mechanics
4 County J.V.S

Kulp, Paul T.
Carpentry
4 County J.V.S.

Leitner, John C.
Carpentry
Toledo-Cotter

Letke, Leonard W.
Machine Trades
Woodward High School

McCord, Alpheus
Appliance Repair
4 County J.V.S.

Murphy, Dorothy M.
Cosmetology
Vanguard J.V.S.

Phillips, Norman L.
Auto Mechanics
4 County J.V.S.

Piper, James
Machine Trades
Fostoria High School

Pollack, Anthony C.
Auto Body Repair
EHOVE J.V.S.

Rapparlic, Willis T.
Welding
Vanguard J.V.S.

Roberts, J. Frank
Machine Trades
Vanguard J.V.S.

Rupp, Norma
Cosmetology
4 County J.V.S.

Salsbury, Robert
Small Engine Repair
4 County J.V.S.

Schnee, Dale
Electricity
EHOVE J.V.S.

Schumacher, Gene
Electronics
Vanguard J.V.S.

Seiling, James R.
Auto Mechanics
EHOVE J.V.S.

Showalter, Herbert H.
Drafting
EHOVE J.V.S.

Strahm, Jack N.
Auto Mechanics
Lima High School

Wilhelm, Robert L.
Welding
EHOVE J.V.S.

TABLE X

List of Participants
Teaching Area
School System Employed

University of Cincinnati (Southwest Section)

Baines, Jesse
Printing
Greene J.V.S.

Brannan, Carl
Auto Mechanics
Meigs Local

Briem, Denver
Machine Trades
Springfield-Clark Co. J.V.S.

Carlson, Bill
Drafting
Hamilton High School

Cavallaro, Louis
Auto Mechanics
Springfield-Clark Co. J.V.S.

Coates, Barbara
Cosmetology
Greene J.V.S.

Crandall, Joan
Food Services
Greene J.V.S.

Dinnen, Myron
Auto Mechanics
Greene J.V.S.

Dolkowski, Bertine
Cosmetology
Patterson Cooperative H.S.

Edgington, Frank
Machine Trades
Picqua City School

Haines, Harry
Auto Mechanics
Washington Court House H.S.

McKinney, Jack
Printing
Greene J.V.S.

Matson, Phillip
Drafting
Patterson

Porter, Betty
Cosmetology
Springfield Clark Co. J.V.S.

Powell, Mary
Cosmetology
Meigs Local

Rinehart, Bernard
Auto Mechanics
Greene J.V.S.

Scroggie, James
Electricity
Greene J.V.S.

Somers, Jack
Printing
Patterson Cooperative H.S.

Spencer, Thelma
Cosmetology
Greene J.V.S.

Sullenberger, Charles
Drafting
Stebbins, Dayton

Taylor, Varney
Metal Fab.
Middletown H.S.

Tharr, Marjorie
Cosmetology
Stebbins, Dayton

Wesley, Mary Ellen
Dental Assistant
Middletown H.S.

Demographic Information - University of Cincinnati

TABLE XI

Distance From The University of Cincinnati To Participant's School System

Miles	No. of Participants	N-23 %
0 - 15	-	-
16 - 30	-	-
31 - 45	3	13
46 - 60	4	17
61 - 75	10	44
More Than 75	6	26

Table XI indicates the distance (one-way) from the University of Cincinnati to the schools in which the EPDA participants are teaching. Eighty-seven per cent of the participants are teaching in high schools which are forty-six more miles from the University. Twenty-six per cent are employed in schools which are more than seventy-five miles from the University. This factor has affected the in-service operation of the program:

1. By limiting the amount of time spent with each participant because of the travel time involved, and,
2. By making it inconvenient for participants to attend the regularly scheduled monthly seminars.

To alleviate this condition, the seminars have been moved from the University campus to a centralized location, which is more convenient for the total group.

TABLE XII

Relative School Enrollment In Which Participants Are Employed

School Size	No. of Participants	N-23 %
Under 400	-	-
401 - 800	12	52
801 - 1200	3	13
1201 - 1600	3	13
1601 - 2000	3	13
2001 - 2400	2	9
2401 - 2800	-	-

Table XII indicates the relative school size in which the participants are employed. Eleven of the participants are employed in joint vocational school districts, nine are employed in comprehensive high schools and three are employed in a centralized vocational high school. None of the participants are teaching in inter-city comprehensive high schools.

TABLE XIII

Different Trade Areas Represented

Trade	No. of Participants	N-23 %
Auto Mechanics	5	22
Cosmetology	6	26
Dental Assistant	1	4
Drafting	3	14
Electricity	1	4
Food Services	1	4
Machine Trades	2	9
Printing	3	13
Welding	1	4

Table XIII indicates the trade areas represented and the number of participants teaching in each area.

There were nine different trade areas represented.

TABLE XIV

Distance From Kent State University To Participant's School System

Miles	No. of Participants	N-47 %
0 - 15	2	4
16 - 30	10	21
31 - 45	20	43
46 - 60	2	4
61 - 75	13	28
More Than 75	-	-

Table XIV indicates the distance (one-way) from Kent State University to the schools in which the EPDA participants are teaching. One-third of the group (32%) has to travel more than forty-five miles to reach the campus to attend the monthly seminars. To alleviate this situation, the EPDA staff is conducting separate seminars at convenient locations away from the campus during the winter months. Participants in the northern section attend one center and conversely participants in the southern section attend another. Five of the seminars will be held at Kent State University involving both sections. The distance between schools has affected the amount of in-service time spent with each participant because of the travel time involved.

TABLE XV

Relative School Enrollment In Which Participants Are Employed

School Size	No. of Participants	N-47 %
Under 400	6	13
401 - 800	14	30
801 - 1200	4	9
1201 - 1600	9	19
1601 - 2000	7	15
2001 - 2400	2	4
2401 - 2800	3	6
2801 and Over	2	4

Table XV indicates the relative school size in which the participants are employed. Twenty participants are employed in joint vocational school districts, twenty-four are employed in comprehensive high schools and three are employed in centralized vocational high schools. Five of the forty-seven participants are teaching in inter-city comprehensive high schools.

TABLE XVI

Different Trade Areas Represented

Trade	No. of Participants	N-47 %
Auto Body Repair	2	4
Auto Mechanics	4	9
Carpentry	2	4
Cosmetology	7	14
Dental Assist.	2	4
Drafting	5	11
Electricity	4	9
Electronics	1	2
Interior Decorating	1	2
Machine Trades	9	19
Medical Assist.	1	2
Printing	4	9
Welding	5	11

Table XVI indicates the trade areas represented and the number of participants teaching in each area. There were thirteen different trade areas represented. The diversity of subject trade areas did produce a heterogeneous grouping of participants, which necessitated the use of consultants in small groups so that instruction could be made relevant to each particular subject area.

Demographic Information - The Ohio State University

TABLE XVII

Distance From The Ohio State University To Participant's School System

Miles	No. of Participants	N-25 %
0 - 15	3	12
16 - 30	9	36
31 - 45	2	8
46 - 60	-	-
61 - 75	5	20
More Than 75	6	24

Table XVII indicates the distance (one-way) from The Ohio State University to the schools in which the EPDA participants are teaching. Forty-four per cent of the participants are teaching in high schools which are sixty or more miles from the University. This factor has affected the in-service operation of the program:

1. By limiting the amount of time spent with each participant because of the travel time involved, and,

2. By making it inconvenient for participants to attend the regularly scheduled monthly seminars.

TABLE XVIII

Relative School Enrollment In Which Participants Are Employed

School Size	No. of Participants	N-25 %
Under 400	-	-
401 - 800	5	20
801 - 1200	14	56
1201 - 1600	2	8
1601 - 2000	2	8
2001 - 2400	2	8
2401 - 2800	-	-

Table XVIII indicates the relative school size in which the participants are employed. Fifteen of the participants are employed in a joint vocational school district; ten employed in a comprehensive high school. None of the participants are employed in a centralized vocational high school. Two of the twenty-five participants (8%) are teaching in inter-city comprehensive high schools.

TABLE XIX

Different Trade Areas Represented

Trade	No. of Participants	N-25 %
Auto Body Repair	1	4
Auto Mechanics	6	24
Carpentry	2	8
Cosmetology	4	16
Dental Assist.	1	4
Drafting	2	8
Electricity	1	4
Machine Trades	2	8
Medical Assist.	2	8
Printing	1	4
Welding	3	12

Table XIX indicates the trade areas represented and the number of participants teaching in each area. There were eleven different trade areas represented. The diversity of subject trade areas did produce a heterogeneous grouping of participants, which necessitated the use of consultants in small groups so that instruction could be made relevant to each particular subject area.

TABLE XX

Distance From The University of Toledo To Participant's School System

Miles	No. of Participants	N-35 %
0 - 15	6	17
16 - 30	-	-
31 - 45	1	3
46 - 60	19	54
61 - 75	9	26
More Than 75	-	-

Table XX indicates the distance (one-way) from the University of Toledo to the schools in which the EPDA participants are teaching. Eighty per cent of the participants are teaching in high schools which are forty-six or more miles from the University. None of the participant's schools are more than seventy-five miles from the University. The majority of the participants (74%) can reach the University in less than one hour. Distance of travel has not affected the program significantly at the University of Toledo.

TABLE XXI

Relative School Enrollment In Which Participants Are Employed

School Size	No. of Participants	N-35 %
Under 400	2	6
401 - 800	5	14
801 - 1200	23	66
1201 - 1600	-	-
1601 - 2000	1	3
2001 - 2400	3	8
2401 - 2800	1	3
2801 and Over	-	-

Table XXI indicates the relative school size in which the participants are employed. Twenty-seven participants are employed in a joint vocational school district, eight are employed in a comprehensive high school. None are employed in a centralized vocational high school.

Sixty-six (66) per cent of the participants are employed in schools ranging from 800 - 1200 students enrolled. This fact tends to indicate the need for medium size school orientation in the institute instructional program. Fourteen (14) per cent are from large high schools, hence the need for some small group discussion on problems which are related to school size.

TABLE XXII

Different Trade Areas Represented

Trade	No. of Participants	N-35 %
Appliance Repair	1	3
Auto Body Repair	2	6
Auto Mechanics	5	14
Carpentry	5	14
Commercial Art	1	3
Cosmetology	5	14
Dental Assistant	1	3
Drafting	3	9
Electricity	2	6
Electronics	1	3
Machine Trades	4	11
Masonry	1	3
Medical Assistant	-	-
Small Engine Repair	1	3
Welding	3	8

Table XXII identifies the trade areas represented and the number of participants teaching in each area. There were fourteen different trade areas represented. The diversity of subject trade areas produced a hetrogeneous grouping of participants, which necessitated the use of consultants in small groups so that instruction could be made relevant to each particular subject area.

The use of consultants for specific trade areas proved to be an effective method of relating specific curriculum and operating procedure to individual needs.

STAFF

The instructional content of the pre-service institute was presented by the following groups:

1. The EPDA assigned staff.
2. Local vocational teachers and administrators.
3. State staff personnel.
4. Trade and industrial staff from the participating universities.
5. University faculty representing disciplines other than Vocational Education.

After the program agenda and schedule was determined, a concerted effort was made to correlate specific topic presentations with existing staff and visiting consultants. Since it is impossible to acquire a project staff competent in the many divergent areas of instruction which were offered, an EPDA staff meeting was held to identify competent lecturers for each specialized presentation.

EPDA Staff

The experience and background of the EPDA Staff contributed immensely to the project's instructional program. Also, having staff members assigned specifically to the project added to the coherence of the program. A significant factor realized by selecting experienced staff and assigning them full-time to the program was considered vital because of the overall direction and guidance given each participant. Maintaining a ratio of one staff member for every twenty-five (25) participants enabled the participants to receive specialized and individualized instruction throughout the program.

Maintaining this workable ratio enabled the staff to develop the potential teacher more completely than would have been the case with a larger group. Another important factor, which was realized from the established ratio was the relationship and rapport which develop between the staff and the participants. The effect of this rapport is becoming more and more pronounced as the teacher works with the teacher during the in-service phase of the project.

Local Vocational Teachers and Administrators

In an effort to make the pre-service relevant to conditions found in the public schools, high school teachers and administrators were used as consultants for topic presentations. Teachers and administrators were selected who had demonstrated outstanding capabilities in specific subject areas. In addition to individual presentations, panels of teachers were utilized so that varying approaches to problems and situations could be viewed and discussed. The topics of the panel discussions were centered around classroom and laboratory management. At each of the participating universities, the panel composition consisted of teachers who were presently teaching in the types of programs the participants were preparing to enter. Each of the subject areas represented had unique management situations inherent to that particular subject. In order to make the methods and management presentations meaningful, consultant teachers representing different subject trade areas also met with the participants in small group planning sessions. In these small group planning sessions, specific questions were discussed and possible solutions suggested. The utilization of consultant teachers, especially in the small group sessions, as evidenced by the participants evaluations, was considered to be an effective method of instruction when a hetrogeneous grouping of subject trade areas are represented.

State Staff Personnel

The administration of vocational education and to understand its purpose and structure at the local, state and national level was the nature of the presentations presented by the state staff personnel. Involving state personnel in the institute was considered valuable from two standpoints:

1. The topics presented were relevant to their function and thus a thorough and up-to-date presentation was given and,
2. The participants had the opportunity to hear and meet the State Director of T & I and other Supervisory personnel.

Trade and Industrial Education Staff

The vital contribution made to the pre-service institute was the inclusion of the trade and industrial education staff at each participating university. At each university, existing Trade and Industrial Staff members possess competencies in areas of specialization within

Trade and Industrial education. At each university, existing staff were called upon to give presentations in areas of specialization.

University Faculty

Representing Disciplines Other Than Vocational Education

As was stated earlier, a planned effort was made to involve consultants from disciplines other than Vocational Education. Through this inter-disciplinary approach, consultants from the areas of psychology, instructional materials, and secondary education were effectively utilized to give presentations relevant to their speciality area. In the area of psychology, the instructional content was focused on topics such as:

1. Adolescent development within an examination of the physical and mental development of the student from childhood to late adolescence.
2. The relationship established by youth with peer groups and adolescent authority.
3. Theories and concepts of learning.
4. Individual differences of students.
5. Attitude development and the motivation of the student learner.

The inclusion of professors from the academic disciplines was extremely beneficial and well received by the participants. The EPDA Staff in evaluation, feels more time should be provided for topics relevant to psychology and its principles in developing an understanding of the adolescent.

Full-Time Staff

Full-Time Project Personnel

The University of Cincinnati

Donald A. Garrison

(Brief Resume)

Work Experience

Service Station Attendant
Hydraulic Press Operator, Randall Company
Self-employed Painter

Educational Background

Bachelor of Science Degree, Wilmington College: Major, Physical Education
Minor, Industrial Arts
Master of Education, Univ. of Cincinnati: Major, Vocational Education
Minor, Administration

Teaching Experience

Blanchester High School, 7 years, Industrial Arts, General Shop, Science, Drafting, Coach - Baseball and Football, Athletic Director (2 years), D.C.T. Coordinator of Vocational Programs (3 years).
Assistant Director of the Southern Ohio Manpower Training Center, Jackson, Ohio, 18 months.
Teacher-Educator at the University of Cincinnati, 1967-present.

Kent State University

Theodore J. Fait

(Brief Resume)

Work Experience

Reymond Machine Shop
Buckeye Machine Shop
Belmont Stamping
Warner & Swasey, Inc.
Allied Machine & Engineering
Invincible Mfg. Company

Educational Background

Bachelor's Degree, Kent State Univ., 1966: Majors, History
Grades and Industries
Master of Education, Kent State Univ., 1969: Major, Trade and Industrial Education

Professional Experience

Vocational Director, 1966-69 - Duties: Recruit and recommend teachers;
Director of Adult Program - enrollment average 800 per year;
Director of basic education class;
Supervise and improve instruction of day class teachers;
Evaluate teachers;
Director of manpower training programs;
Select and meet with advisory committees;
Purchase equipment and supplies for programs;
Director of both summer and winter work-study programs;
Make applications and complete forms for foundation funds for both in-school classes and adult classes;
Make out payroll for all programs with the exception of day class teachers;
Review current programs and recommend to superintendent improvements or changes in the curriculum.

The vocational program in New Philadelphia, Ohio now includes 15 units in business, distributive education, home economics, and trades and industrial education.

Supervisor of Trade and Industrial Education, New Philadelphia, 1964-66 Duties: Similar as above, but the day program was limited to three classes in the trades and industries. The adult program has been in existence since about 1944.

Coordinator of Adult Program 1/2 day and teacher in Vocational Machine Shop 1/2 day, 1962-64.

Coordinator of Adult Program and teacher in Vocational Machine Shop full day, 1960-62.

Teacher of Vocational Machine Shop and teacher in Adult Program at night. Chairman of committee that planned the industrial arts and vocational education shops which opened for instruction in 1959, 1947-60.

Kent State University

William Sutton

(Brief Resume)

Work Experience

Machinist, Prime Industries, 1960-63
Machinist, Sheppard Special Machine Co., 1959-60
Machinist, Wateredge Company, 1958
Lathe Hand, 1957
Machinist, Electric Switch Corp., 1956

Teaching Experience

Cleveland Board of Education, West Technical High School, Machine Shop Department, 1956-69.

Educational Background

In-service Training, Vocational Certification, 1966-67
Pre-Service Workshop, Kent State University, 1966
Western Reserve University, Cleveland, O., Master of Arts: Major, Secondary School Guidance and Administration, 1958-61.
Purdue University, West, Lafeyette, Indiana, Bachelor of Science, School of Trade and Industrial Education.

The Ohio State University

James A. Provost

(Brief Resume)

Work Experience

Merritt Barr Electrical Contractor, Electrician, Summers of 1949-56
John McCautrey Building Contractor, Laborer, 1946
Pittsburgh Crucible Steel Co., Pointing Machine Operator, 1942-43
Follanshee Steel Co., Grinder Operator, 1942

Educational Background

Bowling Green State Univ. B. S. Degree, 1949, Major: Industrial Arts
Minor: Physical Education
Bowling Green State Univ. B. S. Degree, 1956, Major: School Administration
Minor: Psychology

Teaching Experience

Liberty Twp. School, Industrial Arts and Physical Education, 1949-1952
Brandon Elem. School, Elem. Phys. Education, 1953-54
Webster Twp. School, Executive Head of Schools, 1954-58
Eastwood Schools, Principal and Transportation Supv., 1958-63
The Ohio State University, Bus Transportation Consultant, 1963-65
The Ohio State University, Teacher Educator - T & I Education, 1965.

Additional Educational Experience

Wrote and established the first training program for bus drivers in Ohio.
Conducted two week workshops for:
  Vocational Teachers of Cosmetology, 1966
  Vocational Teachers of Practical Nursing, 1967
  Vocational Trade Teachers, 1968
Co-directed pre-service workshops (one week) for day trade teachers, 1967-8-9.

University of Toledo

Harry E. Tolles, Jr.

(Brief Resume)

Work Experience

Electronic Field Engineer, Goodyear Aircraft Corp., Akron, 1960-61
Electronic Technician, Kaiser Electronics Corp., 1953-60
Television Service Technician, B & H Electronic Corp., 1952-53
Naval Electronic Technician, 1948-52

Educational Background

B. Voc. Ed. Trade and Industrial Education, University of Toledo, 1966
M. Ed. Guidance and Counseling, University of Toledo, 1967 (Thesis: "The Relationship of Shop Grades to Selected Instruments at Macomber Vocational High School")
Post-Masters, School Administration and Higher Education, University of Toledo

Teaching Experience

Vocational Trade and Industrial Teacher Educator, Ohio State Department of Education, University of Toledo, 1967.
Trade and Industrial Education Assistant Supervisor, Penta County Joint Vocational School, 1965-66.
Vocational Electronic Technology Instructor, Macomber Vocational High School, 1961-65.

Director-Coordinator

Carl V. Gorman

(Brief Resume)

Work Experience

Ten years as a journeyman machinist for the B. F. Goodrich Company in Akron, Ohio. Four of the ten years were devoted to a formal apprenticeship program.

Educational Background

Bachelors Degree, Kent State University:	Major, Industrial Arts Education Minor, Trade & Industrial Education
Masters Degree, Kent State University:	Major, Trade & Industrial Education Minor, Education

Teaching Experience

a. High School - four years a teacher in the machine trades, Hower Vocational High School, Akron, Ohio.
b. M.D.T.A. Adult - one year, Hower Vocational Adult Program, Akron, Ohio

Specialized Institute - Graduate of Leadership Development Program (a one-year program designed to develop leadership in vocational education.)

Supervisory Experience - First director of the EHOVE Joint Vocational School. (A joint vocational school which serves thirteen school districts in three counties in Northwest, Ohio.)

Teacher Educator at Kent State University - (In this capacity, Mr. Gorman teacher trade and industrial education courses on campus, directs summer workshops, and works with non-degree teachers on an in-service basis).

PART III

PRE-SERVICE INSTITUTE

Program Operation

Pre-Service Six Weeks Institute

The pre-service institute of the instructional program consisted of six weeks in residence training for the participants at one of the four locations (University of Cincinnati, Kent State University, The Ohio State University and the University of Toledo). During the six weeks institute the instructional program was concerned with two major facets of vocational teacher education:

1. Developing a high degree of competency in classroom and laboratory teaching techniques.
2. Organizing and developing classroom and laboratory materials with which the teacher could utilize during the in-service teaching phase.

During the planning stages the emphasis was to develop and present a program which would be relevant and practical for the beginning teacher. In addition to the experience possessed by the assigned EPDA staff, other Vocational educators, Vocational administrators and teachers were consulted. The competency questionnaire (Page 16) was analyzed thoroughly to determine relevant topics which were considered important. Thus the instructional content of the institute was determined through the use of the analysis technique. The content of the institute was then developed around the following four major divisions:

1. Teaching methods and techniques.
2. Selection and organization of subject matter.
3. Classroom and laboratory management.
4. Evaluate techniques and practices.

Through the combined efforts of the instructional staff of the four universities involved, a model instructional program was developed. The model included a refined plan of procedural activities which were used in conducting the institute. The model instructional program was developed with the explicit purpose of utilizing it in subsequent training programs and was to make it available to other teacher education institutions.

Instruction was given in the techniques of presenting related technical knowledge and in the methods of presenting manipulative activities. Participants received instruction in both traditional techniques (demonstrations, discussion, etc.) and teaching media (audio-visual materials, equipment, etc.).

The second major aspect of the six weeks institute was devoted to assisting the teacher in developing definite and relevant plans for his or her trade and industrial program. The emphasis during this phase of instruction was on planning the teaching content, developing job, operation, information, and assignment sheets and developing other instructional materials. Upon completion of this phase of the program, the teacher developed sufficient planning skills along with an individual course outline and teaching materials to adequately begin and successfully conduct a trade and industrial education course.

Professional staff members from other academic areas in the university were contacted from areas such as psychology, audio-visual, and guidance and counseling. Additional specialists from the State Department of Education served as lecturers to produce a more effective program. Their presentations were primarily in the area of the organization and administration of vocational programs.

At regular intervals in the program the participants strengthened their teaching competency by presenting related and manipulative lessons in their specific vocational area. Video tapes of these lessons were prepared and the performance was reviewed and evaluated by the individual teacher, the entire group, and the teacher educator. This technique provided frequent practice of teaching skills and also allowed the participant, through the feedback feature, to view himself as others observed him.

Methods of Reaching Objectives

The development of the program character was established to provide as much application and actual teaching practice as could be arranged.

The program was so designed that the morning sessions were devoted to producing as many Why and How methods and materials as were feasible for proper instructional practices.

The afternoon sessions were devoted to utilizing this "Know-how" by developing instructional materials for the teachers' own use. Some examples of this are writing tests and other evaluation criteria, organizing and writing lesson plans, providing visual aids for instructional purposes, organizing personnel charts, progress sheets, and instructional sheets.

Special sessions were scheduled to provide actual experience in demonstrations of teaching methods; this was done in conjunction with the "TV Micro-Teaching Technique". The teaching demonstrations were TV taped and replayed with constructive suggestions for improvement. This was followed by another teaching experience to determine improvement.

OBJECTIVES

Recruitment Phase

General Objectives	Specific Objectives
1. To attract skilled craftsmen to teaching careers in approved in-school preparatory trade and industrial education in the State of Ohio.	1. To attract skilled craftsmen: a. Presentations will be made to industrial and craft organizations explaining the aims and objectives of Trade and Industrial Education and the E.P.D.A. pattern of teacher education. b. Informational seminars will be conducted in the selected centers in the State of Ohio. (Interested applicants to be notified through use of local newspapers and radio broadcasts.) c. Presentations will be given at professional Vocational Education meetings. d. Local administrators will be informed of the project so that they will explain the pattern of teacher education to the applicant during preliminary interviews.

Six Weeks Institute Objectives

General Objectives	Specific Objectives
2. To develop an understanding of the organization and philosophy of Vocational Education, specifically in the area of Trade and Industrial Education.	a. The student will be able to identify and describe the service areas of Vocational Education. b. The student will be able to describe the organizational structure of Vocational Education in the State of Ohio. c. The student will be able to describe the origin, development and principles of Vocational Education. d. The student will understand the concepts of Vocational Education and will understand their place in the total educational program. e. The student will be familiar with major Federal Legislature Acts relevant to Vocational Education. f. The student will be able to identify past and present national leaders in Vocational Education and will be able to discuss the

General Objectives	Specific Objectives
	contributions they have made to the field of Vocational Education.
3. To develop an understanding of the adolescent's physical and mental development and to become adequately equipped to deal with behavioral problems of the student.	a. The teacher has an accurate understanding of individual differences and is able to deal with individual problems related to the adolescent. b. The teacher is aware of physical, mental and emotional changes that come in adolescence. c. The teacher is able to anticipate the changes in adolescence and is able to guide students to self-understanding. d. The teacher understands differences due to sex, race, maturity, family and environment. e. The teacher constantly observes, listens to, and tries to understand each student. f. The teacher is alert and takes whatever action is necessary to help individuals fit into their peer group.

General Objectives	Specific Objectives
	g. The teacher, when reprimanding, uses methods that will make the individual understand to know what is expected and be willing to cooperate.
4. To develop the competence of the teacher in the development and use of instructional aids and media in conducting related and laboratory teaching.	a. The teacher is aware of all teaching aids at his disposal. b. The teacher is able to incorporate educational media in his instructional program. c. The teacher knows the potential of each teaching aid and how to incorporate it in the teaching situation. d. The teacher is able to set up and explain the equipment used in audio-visual instruction. e. The teacher is able to develop teaching aids adaptable to his program.
5. To develop the competence of the teacher in using various teaching techniques (methods) in conducting related and laboratory classes.	a. The teacher performs demonstrations in the shop or laboratory in teaching manipulative skills. b. The teacher uses the developmental method in the related classroom.

General Objectives	Specific Objectives
	c. The teacher uses direct, overhead, relays and reverse questions when using the discussion method of instruction.
	d. The teacher will prepare for and conduct field trips.
	e. The teacher conducts classroom sessions using the panel discussion method.
	f. The teacher uses the conference technique in solving group problems.
	g. The teacher will be familiar with and use the various techniques of individual instruction especially when correlating the theory with the manipulative skills.
6. To develop the competence of the teacher to evaluate students and teaching processes in conducting related and laboratory classes.	a. The teacher will construct objective tests using multiple choice, true-false, matching and completion items.
	b. The teacher will use and develop a progress chart.

General Objectives	Specific Objectives
	c. The teacher will develop a grading system for use in class. d. The teacher will establish standards for evaluating shop or laboratory work. e. The teacher will develop and use performance tests in the evaluation of manipulative skills. f. The teacher can select and evaluate tests and reference materials to meet course objectives.
7. To enable the teacher to prepare lesson plans, personnel systems, instruction sheets, and other materials under close supervision in preparation for the first six weeks of school.	a. The teacher will be able to prepare a written lesson plan for each lesson. b. The teacher will construct lesson plans using the Four Step Method format. c. The teacher will gear his lesson plans to the capabilities of the class. d. The teacher will prepare lesson plans, which correlate the manipulative skills with the related theory.

General Objectives	Specific Objectives
	e. The lesson plans will insure continuity to the instructional program. f. The teacher will develop an acceptable format in the writing of instruction sheets.
8. To develop an understanding of how course content is selected and developed in Vocational Education and to give the teacher the opportunity to develop same under close supervision.	a. The teacher will be able to list and develop the procedures used in preparing a course of study. b. The teacher will be familiar with trade analysis and will be able to select teachable content using this method. c. The teacher will organize and develop a course of study around useful and meaningful units of experience that relate the instructional program to instructional practices. d. The teacher makes provisions for students of different abilities.

General Objectives	Specific Objectives
9. To develop the competence of the teacher to effectively manage and organize the related classroom and laboratory.	a. The teacher will recognize behavioral problems when they arise in the classroom and laboratory, and take necessary action to solve them.
	b. The teacher will use a student personnel system in the management of the laboratory.
	c. The teacher will arrange the skills to be taught in the laboratory in a sequence that will provide advancement of the student.
	d. The teacher will correlate the related class with laboratory work.
	e. Individual achievement is maintained accurately by means of a visible progress chart.
	f. The teacher has an effective safety program in operation in the laboratory.
	g. The teacher writes daily lesson plans and uses them in the related class and laboratory.

General Objectives	Specific Objectives
9. (Continued)	h. The teacher develops student attitudes for the care and conservation of equipment materials.
	i. The teacher stimulates and maintains interest throughout the instructional processes.

Brief Resume of The Pre-Service Institute Content

Orientation to Vocational Education

The orientation phase of the institute placed emphasis upon areas such as: structure and organization of vocational education in Ohio; certification requirements; in-service education for the trade and industrial teachers; relationship of trade and industrial education with the world of work; resources available in conducting an effective program of trade and industrial education; and youth organization in vocational education.

Psychology of the Adolescent

The instructional content consisted of topics concerned with: child and adolescent development, with an examination of the physical and mental development of the student from childhood to late adolescence; the relationship established by youth with peer groups and adult authorities; theories and concepts of learning; individual differences; attitude development; and factors in motivating the student learner, etc.

Planning Sessions in the Instructional Program

A considerable amount of time was given to the important aspect of planning. During the planning sessions, the potential teacher planned and developed material, which he could use in conducting his program at the local level. Major concerns of the planning sessions were: the development of plans for manipulative activities in the laboratory; lesson plan development for the related classroom; information sheets and progress charts; and audio-visual aids.

Selecting and Organizing Instructional Content

Instruction was given during the pre-service institute to familarize the new instructor with occupational analysis procedures and terminology. The content was designed to help in learning a method of determining what to teach by critical analysis of a particular trade or technical area and provide the opportunity to put the procedures into practice. Additional instruction during this time interval was given in course of study development that will be expanded to a master plan for an entire one or two year program as part of the in-service instruction.

Practice by the Participants in Conducting a Related or Laboratory Lesson

The participant gained valuable experience and confidence by presenting materials before the group. Each participant gave both related and manipulative lessons in his or her trade area employing the various materials and teaching methods in presenting the lesson. A brief review and critique of each teacher's performance was conducted to insure immediate feedback of the strong and weak points of the presentation.

Evaluating Student Progress

The new teachers were exposed to various devices for measuring student achievement through the examination of progress charts, rating scales and standard and non-standardized evaluation instruments. Instruction also was given in other areas of evaluation such as objective and subjective evaluation, underlying principles of test development, the use of various types of questions, true-false, multiple-choice, etc. Time also was devoted to a review of the various trade tests developed by the trade and industrial education services, State of Ohio.

Guidance Practices in Vocational Education

This session of the institute was concerned with the role of the trade and industrial education program and its relationship to the guidance program of the school. The participants became familiar with guidance activities that included processes employed in the selection of students for trade and industrial programs. Such areas as the assessment of student interest and aptitude, providing adequate occupational information, and placement of students upon completion of high school were covered. Also social, personal, and academic guidance functions were reviewed during this session.

Teaching Methodology

The afternoon sessions were concerned with teaching methods and techniques in trade and industrial education, which covered areas such as questioning techniques, methods of group instruction, and methods of individualized instruction. Instruction in the theory and practical application of conducting effective demonstrations, conference techniques in teaching and the correlation of laboratory and trade technology instruction were covered.

Classroom and Laboratory Management

This phase of the pre-service institute devoted instructional time to the establishment of classroom conduct by consideration of the instructor's habits, conduct, appearance, speech, etc. A study of other factors that are related to discipline and the procedures for dealing with them also was given attention. Instruction in laboratory management examined the planning and organizing of tool and storage facilities, repair and requisition of tools and supplies, maintenance of equipment, housekeeping activities, and developing and implementing of a student personnel system.

The Development and Use of Instructional Material

New teachers were exposed to the different types and kinds of instructional aids: 16mm films, film strips, slides, transparencies, etc., during this session. Instruction at this time focused on the application and practical use of such materials and their relationship to other instructional techniques and to the total trade and industrial program. Maintenance and operation of equipment along with adequate instruction on the procedures for the development of relevant teaching materials was explained and demonstrated.

Recruitment Program

In order to reach eligible craftsmen and to attract them to teaching careers, a more effective recruitment program will have to be initiated. The recruitment process will have to be a concerted effort between the State Department of Education, local schools and the teacher education institutions. Each of the three agencies mentioned will have to assume a share of this responsibility to assure success of the recruitment program. (See Page 33 for a suggested procedure for recruitment.)

New Techniques of Instruction

Micro-Teaching Techniques

In an attempt to use the most modern techniques in presenting teaching methods and techniques, the "micro-teaching" technique was used extensively during the six-weeks pre-service institute.

Using portable audio-visual equipment or the services of the instructional materials laboratory at each university, televised presentations were filmed in the classroom of actual demonstrations and related classroom procedures. After the participants were taught the various methods and techniques used in vocational education for presenting information, they were given the opportunity to apply the methods learned by presenting lessons to the group. Their presentations were televised on audio-visual tape, replayed and critiqued.

The EPDA staff feels that the micro-teaching technique is an excellent device for the instruction of teaching methods. It not only allows the participant to see poor and excellent presentations, but also helps the individual gain confidence in presenting information to a class of students.

There was marked improvement on presentations made after the workshop participants had the opportunity to review their presentations and to discuss the strengths and weaknesses with the teacher educator.

Audio-Visual Instruction

The Audio-Visual Services Department at each university cooperated with the EPDA staff in presenting an intensive instructional program in the use of audio-visual media. A total of two days was spent in the audio-visual centers at each university. The program developed consisted of three parts:

1. An introduction to audio-visual instruction and its utilization in the instructional program.
2. The preparation of transparencies and other media.
3. The operation of audio-visual equipment.

After the presentations to the group and the appropriate demonstrations given by the audio-visual consultant, the participants were rotated through six different pre-arranged work stations where they prepared transparencies for their particular teaching situation. Each station permitted each participant to practice and apply the techniques and principles which were previously demonstrated. Time was devoted to the production of overhead transparency masters, hand drawn transparencies, thermographic application, coloring of hand made transparencies and the dry photo process. Emphasis was placed on the preparation of audio-visual materials which the teacher could utilize in his own teaching situation upon completion of the institute.

Preparation of Instructional Materials
Prior to Teaching

An extensive assignment for the participants was made with the thought that the instructors would be confused and overloaded the first week or two of school. The assignment was given for two reasons:

1. To assist the teacher educator in his evaluation of the participant.
2. To enable the teacher to prepare prior to the starting of the school year.

The assignment covered the necessary planning for both the related technology class and the laboratory class. The assignment contained the following:

I. Two Week Plan

    A. Daily teaching guide
        1. Titles of manipulative lessons
        2. Titles of related lessons
        3. Written plan for first day of school

II. Lesson Plans

    A. Written lesson plan for each lesson title in your two-week plan.

III. Progress Chart

    A. Fill-in operations to be taught and jobs to be assigned for your first two weeks of school.

IV. Class Organization Plan

A. The plan that you will follow in assigning pupils to:
   1. Work stations
   2. Clean up areas
   3. Extra-work assignments

Correlation of Subject Matter

Practical Application of Theory

The workshop sessions were made as practical as possible. Whenever a new method or technique was introduced, it was discussed in detail during the morning session. Immediately following the presentation, the participant developed a lesson plan utilizing the particular method discussed. The application of this method was utilized as soon as possible so that correlation of subject matter was inevitable. As often as possible, the participants were given a new technique in the morning session and were then asked to present the new technique in a presentation during the afternoon session.

Home-School Visitation

One day of the six-weeks institute was set aside to allow the participant to return to the particular school in which he was going to teach so that he could obtain information pertinent to his teaching situation. A meeting was scheduled with each vocational director so that the following information could be obtained prior to the opening of school:

I. Laboratory Information

   A. List of work stations
   B. List of equipment
   C. List of hand tools
   D. List of stock and material available
   E. Description of first aid supplies and procedures
   F. Sketch of location of fire extinguishers
   G. Sample of tool inventory record

II. Audio-Visual Aids

   A. List of films, slides, transparencies, etc.
   B. Kinds of Audio-Visual equipment available to you.

III. Textbook

   A. List of texts available for students
   B. List of workbooks

IV. School Forms

   A. School Handbook
   B. School policies
   C. Copies of all standard forms
   D. Grade Book

V. Course outline or course of study for the particular course.

The EPDA staff felt that the visitation to the home school could have been more effective if it would have been scheduled during the last week of the institute.

Lecturers and Consultants

Consultants who were experts in a trade area or a speciality field were used extensively in the workshop. An effort was made to present a interdisciplinary institute so that the participants could see the relevancy and the necessity of other disciplines and the vital contributions they have to offer the vocational program.

Pre-Service Institute

Typical Outline of Presentations

July 14, 1969

I. Introduction - Director
  A. Staff
  B. Participants

II. Welcoming Remarks - Dean, College of Education

III. Registration - Records office personnel

IV. Pre-service Institute Schedule - Director

V. Housing arrangements and Bookstore (See Appendixes A-8 and B-1)

Lunch

VI. Overview of Vocational Education (See Appendix B-2)

VII. Ohio Trade & Industrial Education Service (See Appendix B-3)

VIII. Trade & Industrial Teacher Education
  A. Old Plan
  B. Recent Plan
  C. Pilot Plan (EPDA)

IX. Principles of T & I Education (See Appendix B-4)

X. Qualities of a Good Instructor (See Appendix B-5)

XI. Assignment

July 15, 1969

I. Determining what to teach
  A. Experience
  B. Hand tools
  C. Machinery
  D. Equipment
  E. Products
  F. Services
  G. Materials

II. Blocks

III. Course Outlines
    A. School
    B. State

IV. Block Base (See Appendixes B-6 and B-7)

V. Operation within block base (See Appendix B-8)

VI. Related within block base

VII. Work Session (See Appendix B-9)

July 16, 1969

I. Operations (See Appendixes B-10 and B-11)

II. Jobs

III. Factors Influencing Job Selection

IV. Frequency Chart (See Appendix B-12)

V. Work Session (See Appendix B-13)

July 17, 1969

I. Shop Organization
    A. Opening the Shop
    B. Shop Procedure
    C. Closing the Shop
    D. After Closing the Shop
    E. Shop Personnel System

II. T & I Teacher Consultants
    A. Consultant for each trade group - informal small group discussion with consultant.

July 18, 1969

I. School Visitation (See Appendix B-14)

July 21, 1969

I. The Learning Process (See Appendix B-15)

II. Motivation

III. Teaching Methods

IV. Learning Environment

V. Teaching Manipulative Lessons (See Appendixes B-16 and B-17)
   A. The "Allen Four-Step" Method (See Appendix B-18)
   B. Steps and Key Points
   C. Sample Manipulative Lesson - "The Signwriters Cup" (See Appendix B-19)

VI. Work Session
   A. Prepare a manipulative lesson (See Appendixes B-20, B-21, and B-22)

July 22, 1969

I. "Safety Examination" - Pre-test

II. Safety Education
   A. Physical Conditions
   B. First Aid
   C. Student Personal Protection
   D. General Safety Precautions

III. Work Session
   A. Safety Plan
   B. Manipulative Lesson Plans

July 23, 1969

I. Video Tape Recording of Manipulative Lessons

II. Critique of VTR Lessons

July 24, 1969

I. Operation sheets

II. Job Sheets (See Appendix B-23)

III. Job Plan Sheets

IV. Work Session
    A. Prepare a Job Sheet (See Appendix B-24)
    B. Prepare an Operation Sheet
    C. Manipulative Lesson Plans

July 25, 1969

I. Correlating Shop and Related Instruction (See Appendix B-25)

II. Related
    A. Technical
    B. General
    C. Guidance

III. Teaching Related (See Appendix B-26)
    A. Plan the Lesson (See Appendix B-27)
    B. Teach the Lesson

IV. Sample Related Lesson - "Scientific Notation" (See Appendix B-28)

V. Lecture Method

VI. Modified Lecture Method

VII. Work Session
    A. Select First Related Lesson (See Appendix B-29)
    B. Prepare a Related Lesson Plan

July 28 & 29, 1969

I. Video tape recording of manipulative lessons (See Appendix B-30)

II. Critique of VTR

July 30, 1969

I. Methods of Group Instruction

II. Questioning Technique (See Appendixes B-31, B-32, and B-33)

III. Presentation of Material (See Appendix B-34)

IV. Format for Developmental Method

V. Work Session
   A. Prepare Related Lesson Plans
   B. Prepare "Key" Questions for Lesson Plans

July 31, 1969

I. Information Sheets
   A. Definition
   B. Why Use
   C. When to Use
   D. How to Write
   E. How to Use

II. Assignment Sheets (See Appendixes B-35, B-36, B-37, and B-38)
   A. Definition
   B. Why Use
   C. When to Use
   D. How to Write
   E. How to Use

III. Work Session
   A. Write an Information Sheet
   B. Write an Assignment Sheet (See Appendix B-39)
   C. Prepare additional related and manipulative lesson plans

August 1, 1969

I. Panel Discussion of Discipline Case Studies (See Appendixes B-40 and B-41)
   A. Experienced Shop Teacher Panel
   B. Case Studies of 1968/69 School Year

II. Work Session
   A. Prepare Basic Shop/Class Rules
   B. Prepare additional related and manipulative lesson plans

August 4 & 5, 1969

I. Introduction to Audio/Visual Aids

II. Production of Visual Aids
   A. Lettering
   B. Mounting
   C. Displaying

III. Overhead Transparencies
   A. Preparation
   B. Utilization

IV. Slides
   A. Preparation
   B. Utilization

V. Motion Pictures
   A. Projector Operation
   B. Indexes and Catalogues

August 6, 1969

I. Methods of Individual Instruction
   A. The Bird System

II. Tape recording of "The Poor Scholar's Soliloquy" (See Appendix B-42)

III. Work Session - open - continue on any or all previous assignments.

August 7, 1969

I. The Conference Method
   A. Advantages
   B. When to Use
   C. How to Use
   D. How to Conclude
   E. Sample Conference

August 8 & 11, 1969

I. Video tape recording of related lessons

II. Critique of VTR Lessons

August 12, 1969

I. Ohio T & I Achievement Test Program

II. Testing Terminology

III. Achievement Test Characteristics
   - A. Validity
   - B. Reliability
   - C. Objectivity
   - D. Discrimination
   - E. Comprehensive
   - F. Useability

IV. Major Characteristics of Essay & Objective Tests

V. Constructing Test Items

VI. Work Session
   - A. Construct test items

August 13, 1969

I. Review of test items from previous work session

II. Grading Procedures (See Appendix B-43)
   - A. Weighing
   - B. Homework
   - C. Class Participation
   - D. Quizzes
   - E. Reports
   - F. Jobs
   - G. Tests
   - H. Attitude

III. Work Session
   - A. Continue item construction

August 14, 1969

I. Student-counselor Relationships

II. Advising Students

III. Student Records (See Appendix B-44)

IV. Work Session - Final Assignment (See Appendix B-45)

August 15, 1969

I. Ordering Supplies
  A. Procedure
  B. Forms
  C. Lead Time

II. Inventory
  A. Procedure
  B. Forms
  C. Responsibility

III. Maintenance of Shop Equipment
  A. Responsibility
  B. Procedure

IV. Work Session - open - continue on any or all previous assignments.

August 18 & 19, 1969

I. Assignment to Home School (See Appendix B-46)
  A. Teacher Educator Assignments

August 20, 1969

I. Professionalism
  A. Definition
  B. How to practice
    1. Overhead sequence
  C. Professional Organizations
    1. OVA
    2. AVA
    3. OEA

    4. NEA
    5. AFT
    6. Local Organization

II. Industrial Arts/Vocational Education Relationships

III. Local School Organization
  A. Types of Schools
  B. Duties of Administrative Personnel
    1. Superintendent
    2. Principals
    3. Directors
    4. Supervisors
    5. Coordinators

August 21, 1969

I. Teacher Certification
  A. Old
  B. New
  C. Pilot (EPDA)

II. Closing Forms
  A. OE 7214

III. Information Sheet - "Seminar Sessions"

IV. Institute Evaluation

V. Final Examination

Institute Lecturers

Listed below (Tables XXIII, XXIV, XXV, and XXVI) are the names of the lecturers who participated in the six-weeks institute, their professional position, and the topic(s) presented.

A more detailed resume and a topical outline of the material presented is continued in the Appendix, D-1 through D-4.

List of Lecturers

University of Cincinnati

TABLE XXIII

Name	Title	Topic Presented
Russell Garr	Carpentry Instructor	Progress Charts Rules and Regulations of Shop and Related
Ralph C. Neal	State Supervisor	Local School Organization as it Relates to the Voc. Ed. T & I Shop and Related Instructor
Lindsay Ratliff	Supervisor	Instruction Sheets
John A. Marrah	Planning & Development Coordinator	Effective Teaching of Safety
G. Joseph Zieleniewski	Instructor	Educational Psychology Psychology of Adolescence
Glenn H. Grismere	Director	Advisory Committees
Bernard Crum	Adult Education Supervisor	Teacher Relationships

Name	Title	Topic Presented
Samuel J. Capozzolo	Teacher-Coordinator	Qualities of a Good Teacher
Merrell H. Zeter	Director	Shop Management Presentation
Kenneth R. Higgins	Assistant Supervisor	Handouts
Charles B. Dygert	Consultant Apprenticeship Trainer	Leadership Development
Robert L. Finkelmeier	Industrial Trainer	Conference Leadership
William Lawless	Automechanic Instr.	Work Station Assignments
Dr. Byron A. Zude	Associate Professor	Teacher Liability
Dennis H. Price	Department Head	Survey of Trade and Industrial Programs Professional Organizations Certification

List of Lecturers

Kent State University

TABLE XXIV

Name	Title	Topic Presented
Harold Fulton	Voc. Counselor	Counselor Teacher Relationship
Ed Horner	T & I Supervisor	Requisitioning Supplies and Equipment
Thomas W. Gallagher	Superintendent	Safety
John Vasko	Auto Shop Instructor	Student Awards and Competition Preparation for Opening Day

Name	Title	Topic Presented
Don Aman	Teacher	Student Motivation
		Teacher Liability
Carl B. McSween	Shop Foreman	How I Used Competition and the Data Process Dept. in My School
John G. Schwarz, Jr.	Commercial Art Instructor	Motivation
Darrell Rice	Machine Trades Teacher	Films and Field Trips
Jack Foster	Teacher	Homeroom Regulations
		Class Regulations
		Opening Day Procedures and Student Personnel
Mrs. Doris Glass	Teacher	Records and Reports
		Discussion with Dental Assist. Instructors and Health Occupation Instructor
Anthony Agnello	Teacher	Lesson Planning
Charles B. Dygert	Consultant Apprenticeship Trainer	Leadership Development Conference - Ohio VICA Association
Warren C. Foley, Jr.	Dept. Chairman	Unique Problems of the Inner City School
Charles Hunger	Associate Director	Educational Media Introduction and Utilization of Motion Pictures
		Selection, Preservation and Utilization Techniques of Still, Picture Medium
Carl V. Gorman	EPDA Director-Coordinator	Trade Analysis - Determining What to Teach
Robert Yoder	Supervisor	Visual Aids

Name	Title	Topic Presented
Orlan C. Miller	Welding Instructor	Motivation
Roger Meyers	Teacher	Shop Organization
Mrs. W. Brannon, Jr.	Cosmetology Instr.	Student Motivation
Stan O'Connor	D.C.T. Coordinator	Conference Leadership
Thomas E. Hyde	Teacher-Educator	Help for Discussion Periods
		Questioning Techniques
Don W. Hogan	Associate Professor	Techniques in Putting Over A Demonstration
Theodore Chulik	Teacher-Educator	Certification of Trade and Industrial Instructors
William Breitenbach	Instructor	Teacher Responsibility for Job Placement

List of Lecturers

The Ohio State University

TABLE XXV

Name	Title	Topic Presented
Ralph Neal	State Supervisor	Local School Organization as it Relates to the Voc. Ed. T & I Shop and Related Instructor
John Irvine	Supervisor	Discipline
Richard Johnston	Teacher-Educator	Questioning Techniques
George Kosbab	Consultant	Testing - An Overview
Charles Buffington	Graduate Lab Assist.	Audio Visual Aids

Name	Title	Topic Presented
Carl V. Gorman	EPDA Director-Coordinator	Trade Analysis - Determining What to Teach
Ed Davis	Drafting Instructor	Related Class Planning
Frank Oliverio	State Supervisor	Types of T & I Education Programs
Robert M. Reese	Chairman	Principles of T & I Education
James A. Provost	EPDA Teacher Educator	Instruction Sheets
		Four Step Method of Instruction
		Lesson Plan Development
Lou Gross	Electronics Instr.	Qualities of a Good Instructor
Patricia Rutherford	Cosmetology Instr.	Maintaining Student Records
David Bailey	Electronics Instr.	Television Teaching
Joseph Wittemann	Assist. Professor	Psychology of the Adolescent
		Motivation of Learner
Edgar Horner	Supervisor	Ordering Supplies and Maintaining Equipment
Edgar Fleenor	Teacher-Educator	Manipulative Lesson Plans
William Meyers	Mach. Trades Teacher	Shop Management and Your Personal Image

List of Lecturers

University of Toledo

TABLE XXVI

Name	Title	Topic Presented
Harry E. Tolles,Jr.	EPDA Teacher-Educator	Orientation

Name	Title	Topic Presented
Carl V. Gorman	EPDA Director-Coordinator	Determining What to Teach
		Testing and Evaluation
		Grading Procedures
		Occupational Analysis
		Instruction Sheets
		Methods of Group Instruction
		Individualized Instruction
Edna Summers	Cosmetology Instr.	Shop Organization and Management
Dick Shelley	Machine Trades Teacher	Shop Organization and Management
George B. Langell	Drafting Instr.	Shop Organization and Management
Lawrence Szymanski	Radio & TV Instr.	Shop Organization and Management
Ross C. Graves	Carpentry Teacher	Shop Organization and Management
Loren D. Steiner	Auto Lab Instructor	Shop Organization and Management
Paul H. Muntz	Instructor	Teaching Methods in Voc. Education
		Teaching Methods - Conference Technique
Roy A. Miller	Teacher-Educator	Teaching Methods in Voc. Education
		Related Classroom Instruction
		Requisitioning Supplies and Inventory Procedures
		Teacher Certification
Henry S. Pucilowski	Instructor	Teaching Methods in Voc. Education
		Safety
		The Demonstration Method
Franklin P. Koontz	Television Producer/Director	Television Techniques

Name	Title	Topic Presented
Leonard Kingsley	Director	Principles of Learning and Motivation
Alfred Behrendsen	Drafting Instructor	Panel Discussion - Discipline
Donald H. Rex	Auto Mech. Instructor	Panel Discussion - Discipline
Robert A. Rower	Carpentry Instructor	Panel Discussion - Discipline
Opal Stryczek	Dental Assist. Instr.	Panel Discussion - Discipline
Beverly St. Germain	Cosmetology Instr.	Panel Discussion - Discipline
Rick Hoover	Electronics Instr.	Panel Discussion - Discipline
Homer E. Salley	Professor - Audio-Visual Educational Television	Audio-Visual Aids
Roger Kennedy	Educational Media Production Specialist	Audio-Visual Aids
Robert A. Bernhoft	Assistant Professor of Education	Student-Counselor Relationships
Don Terry Scott	Teacher-Educator	Professionalism

Extent To Which Pre-Service Objectives Were Met

To determine the extent to which the project (pre-service phase) met the program objectives, a survey was conducted of all institute participants.

In an effort to obtain relevant and similar data, a standardized instrument (objective form) was developed and administered by each assigned teacher educator. The "objective form" identified only those objectives which were directly relevant to the pre-service institute.

During the month of September, 1970, the instrument was distributed to each participant during the bi-weekly visitations by the teacher educator. Each participant was instructed to carefully and honestly appraise each objective and to return it at the following monthly seminar. The forms were returned unsigned so that an unbiased evaluation might be made. Upon collecting the forms at the seminar, they were returned to the Director-Coordinator for final tabulation. All responses were summarized and appropriate percentages assigned. The summary sheets from each of the participating universities are found on Pages 105, 106, 107, and 108.

"Objective Form" Summary Sheet

Kent State University

TABLE XXVII

	Unsatisfactory	Poor	Average	Good	Excellent
	(Approximate Percentages - N-47)				
1. To develop an understanding of the organization and philosophy of Vocational Education.	12	16	52	20	-
2. To develop an understanding of the adolescent's physical and mental development and to become adequately equipped to deal with behavioral problems of the student.	-	-	10	58	32
3. To develop the competence of the teacher in the development and use of instructional aids and media.	-	-	12	22	66
4. To develop the competence of the teacher in using various teaching methods in conducting related and laboratory classes.	-	8	30	52	10
5. To develop the competence of the teacher to evaluate students and teaching processes.	24	30	40	6	-
6. To enable the teacher to prepare lesson plans, personnel systems, instruction sheets, etc. in preparation for the first six weeks of school.	-	4	28	64	4
7. To develop an understanding of how course content is selected and developed in Vocational Education.	4	12	32	44	8

"Objective Form" Summary Sheet

University of Cincinnati

TABLE XXVIII

	Unsatisfactory	Poor	Average	Good	Excellent
	(Approximate Percentages - N-23)				
1. To develop an understanding of the organization and philosophy of Vocational Education.	12	8	56	24	-
2. To develop an understanding of the adolescent's physical and mental development and to become adequately equipped to deal with behavioral problems of the student.	-	20	60	12	8
3. To develop the competence of the teacher in the development and use of instructional aids and media.	-	8	64	20	8
4. To develop the competence of the teacher in using various teaching methods in conducting related and laboratory classes.	-	12	52	36	-
5. To develop the competence of the teacher to evaluate students and teaching processes.	8	24	12	56	-
6. To enable the teacher to prepare lesson plans, personnel systems, instruction sheets, etc. in preparation for the first six weeks of school.	-	-	32	32	36
7. To develop an understanding of how course content is selected and developed in Vocational Education.	8	16	56	16	4

"Objective Form" Summary Sheet

The Ohio State University

TABLE XXIX

	Unsatisfactory	Poor	Average	Good	Excellent
	(Approximate Percentages - N-25)				
1. To develop an understanding of the organization and philosophy of Vocational Education.	8	4	28	52	8
2. To develop an understanding of the adolescent's physical and mental development and to become adequately equipped to deal with behavioral problems of the student.	12	16	44	28	-
3. To develop the competence of the teacher in the development and use of instructional aids and media.	-	8	36	56	-
4. To develop the competence of the teacher in using various teaching methods in conducting related and laboratory classes.	-	4	52	36	8
5. To develop the competence of the teacher to evaluate students and teaching processes.	4	16	40	40	-
6. To enable the teacher to prepare lesson plans, personnel systems, instruction sheets, etc. in preparation for the first six weeks of school.	4	16	52	28	-
7. To develop an understanding of how course content is selected and developed in Vocational Education.	4	12	44	40	-

"Objective Form" Summary Sheet

University of Toledo

TABLE XXX

	Unsatisfactory	Poor	Average	Good	Excellent
	(Approximate Percentages - N-35)				
1. To develop an understanding of the organization and philosophy of Vocational Education.	-	-	42	51	7
2. To develop an understanding of the adolescent's physical and mental development and to become adequately equipped to deal with behavioral problems of the student.	-	18	45	37	-
3. To develop the competence of the teacher in the development and use of instructional aids and media.	15	9	48	28	-
4. To develop the competence of the teacher in using various teaching methods in conducting related and laboratory classes.	-	6	18	60	16
5. To develop the competence of the teacher to evaluate students and teaching processes.	-	18	25	51	6
6. To enable the teacher to prepare lesson plans, personnel systems, instruction sheets, etc. in preparation for the first six weeks of school.	-	-	15	46	39
7. To develop an understanding of how course content is selected and developed in Vocational Education.	-	18	48	28	7

Summary Sheet Interpretation

In an attempt to convert the percentage summaries to a rating scale which would immediately reveal the extent to which the objectives were met, a graduated scale was developed which converted the percentage summaries to a rating from one to five. The ratings were assigned as follows:

Five (5) is considered Excellent
Four (4) is considered Good
Three (3) is considered Average
Two (2) is considered Poor
One (1) is considered Unsatisfactory.

In evaluating the response percentages, the last three (3) scales (Average, Good, and Excellent) are combined and the following values assessed: If the totaling factors of the last three (3) figures equal ninety-four per cent (94%) or better, a rating of five (5) is assigned. If the totaling factor of the last three figures combined totals eighty-nine to ninety-three per cent (89-93%), a rating of four (4) is assigned. If the totaling factor of the last three (3) figures combined totals seventy-nine to eighty-eight per cent (79-83%), a rating of three (3) is assigned. If the totaling factor of the last three (3) figures combined totals sixty to seventy-eight per cent (60-78%), a rating of two (2) is assigned. If the totaling factor of the last three (3) figures combined totals less than sixty per cent (60%), a rating of one is assigned.

Objective Rating Evaluations

University of Cincinnati

TABLE XXXI

Objective	Total of Percentages Average + Good + Excellent	Degree To Which Objective Was Met
1	80	Average
2	80	Average
3	92	Good
4	88	Average
5	68	Poor
6	100	Excellent
7	76	Poor

Objective Rating Evaluations

Kent State University

TABLE XXXII

Objective	Total of Percentages Average + Good + Excellent	Degree To Which Objective Was Met
1	72	Poor
2	100	Excellent
3	100	Excellent
4	92	Good
5	46	Unsatisfactory
6	96	Excellent
7	84	Average

Objective Rating Evaluations

The Ohio State University

TABLE XXXIII

Objective	Total Of Percentages Average + Good + Excellent	Degree To Which Objective Was Met
1	88	Average
2	72	Poor
3	92	Good
4	96	Excellent
5	80	Average
6	80	Average
7	84	Average

Objective Rating Evaluations

University of Toledo

TABLE XXXIV

Objective	Total Of Percentages Average + Good + Excellent	Degree To Which Objective Was Met
1	100	Excellent
2	82	Average
3	76	Poor
4	94	Excellent
5	82	Average
6	100	Excellent
7	82	Average

Dates and Duration of Institute

The six-weeks institute began July 14, 1969 and was concluded on August 22, 1969. The starting and closing dates were selected primarily for the following reasons:

1. The July 14, 1969 date allowed the six weeks institute to be concluded prior to the opening of school.
2. The schedule permitted the teachers to return to their local schools one week before the starting date so that they could become familiar with their teaching situation. It also allowed the teacher educator to visit them prior to the admission of students to the classroom.
3. It enabled the participants to remain at their industrial positions so that the financial loss was held to a minimum.

Informal interviews were held with both the participants and the local vocational directors to get their opinions on the starting and closing dates. The consenus of opinion in the majority of cases were:

1. A July 14 starting date is too early because many teachers are not hired at the local level by this time. Therefore, it places an additional

burden on the local administrators because it requires him to select a teacher earlier than is presently required.

2. Many teachers were reluctant to leave their industrial positions six-weeks prior to the opening of school because of the financial loss.
3. Some were reluctant to spend the majority of their summer attending a prolonged institute.

The closing date received an excellent rating by both the directors and the institute participants. Concluding the institute one week before the school year begins allowed the teacher to return to the local school and prepare his classroom prior to attendance of students and also gave the teacher educator an opportunity to visit with the teacher to assist him on all last minute organizational problems that he might have had. The duration of the institute is adequate to reach the instructional objectives proposed, however, the majority of participants suggested that the material covered be offered in two separate institutes rather than a concentrated six week institute during the summer months. The concensus of opinion was to:

1. Offer a four weeks pre-service institute prior to the opening of school and,
2. Offer a two week institute immediately after the first year of teaching.

The EPDA staff also agrees that two separate institutes would be beneficial, not only from the instructional aspects, but also, this would allow the teacher to remain in industry two additional weeks. It would also allow the local administrator to have two additional weeks in which to interview potential teachers. An additional feature would be the relevance of instruction. The EPDA staff felt that some material that was covered had little relevance because the participants did not feel that the particular problems discussed would occur in their particular situation. So that by offering a two week workshop at the conclusion of the first year of teaching, a much closer correlation of instructional content to particular problems encountered during the first year of teaching would be realized.

Importance of Informal Sessions

The EPDA staff discussed in detail the effect the informal sessions had on the success of the institute. It was the concensus of the staff that the informal sessions were actually more important than was realized during the sessions. The three significant informal sessions were:

1. The lunch hour.
2. The morning and afternoon session breaks.
3. The informal visits to the dormitories by staff members.

The informal sessions of any program are difficult to evaluate. However, it was realized that as the institute progressed, the rapport between the assigned staff and the participants continued to develop. Later it was realized that this was due to a large degree because of the informal sessions.

In an effort to encourage participants and staff to communicate informally, areas at each university were reserved for the participants. During the lunch hour the participants were able, and encouraged, to compare notes and ask questions for discussion later. The attendance at the lunch hour by a staff member tended to encourage participants to focus their conversations on the institute. An effort was also made to schedule speakers for the morning sessions in order that the presentations could be reviewed and discussed at the lunch hour.

The housing of the majority of the participants in nearby dormitories gave them opportunities for getting acquainted by trade areas, exchanging ideas, and helping each other in solving common problems. The EPDA staff members, in their visits to the dormitories, found that the tension found in the classroom was removed. In the dormitories, the participants were more relaxed and offered suggestions and ideas that do not normally occur in a formal classroom situation. Another informal gathering, which was considered by most to be the highlight of the institute, was the recognition banquet. This banquet gave the participants a sincere feeling of accomplishment. The certificate received seemed to motivate and encourage some participants to continue to further their education and seek a Bachelor's Degree in Trade and Industrial Education.

Unique Features of the Program Which Contributed to Objective Attainment

The duration of the institute (six (6) weeks) was the most significant feature of the project. This single factor made it possible to reach the instructional objectives stated as needed by the neophyte teacher, but which were impossible to attain under the present one-week pattern. To illustrate, a brief explanation follows explaining the procedure of the present one-week pattern.

The present day practices of pre-service education in the state are carried out on a one-week basis that imparts a basic philosophy and organization of vocational education. The objectives of the one-week workshop include introductory experiences in various teaching methodologies, planning techniques, instructional aids, and in the management and control of the laboratory and classroom situation. The predominant limitations of this pre-service workshop are its brief duration and lack of depth. The objectives stated above are appropriate for the beginning teacher; but, the brief exposure in each area is too limited to be of significant value to him.

The pilot EPDA Project provided an extension of time from one to six weeks to enable the participant to gain more depth than is possible under the present pattern. This extension of time not only enables the staff to place more emphasis on the instructional objectives mentioned earlier, but also allowed time for additional objectives that were not possible for the one-week workshop. An additional feature of the six-weeks institute was the opportunity provided the teacher education staff to employ new innovations in the processes and techniques of instruction such as role playing, simulation, and micro-teaching. These new developments enabled the teacher educator to be more effective and efficient in terms of numbers reached and performance levels established by the participant. Finally, the six weeks period enabled the participant to develop a high degree of ability in designing and fabricating instructional materials that were suited for his specific course. The general format of the institute enabled the participant to put into practice the topics that were taught and discussed. Time was allotted for the participant to actually develop teaching aids and techniques that could be used in their classrooms and laboratories.

In summary, the unique features of the six-weeks institute were:

1. The pre-service institute provided the impetus for concentration of resources from the U. S. Office of Education and the four state universities to develop a better and more effective method of preparing new teachers.
2. The financial assistance given the participants (stipends, dependency allowances and fee waivers) made it possible to recruit craftsmen from industry six weeks prior to the opening of school.

3. The participants were given the opportunity to practice teaching during the institute utilizing various methods of teaching.
4. The different techniques of teacher education such as micro-teaching and simulation were effectively used.
5. The extensive use of lecturers, both vocational and academic, who gave presentations in specialized content areas.
6. The involvement of other departments within the university in order that an inter-disciplinary approach was possible.

Participant's Comments Concerning The Significant Aspects of the Institute

In an effort to assess the participant's reaction to the relevancy of the institute, each participant, near the conclusion of the institute, was asked to give a written response to the following question: "In your opinion, what is the most significant aspect of the pre-service institute?"

The participant's responses generally fell into the following categories:

1. Material Development
2. Visual Aids
3. Lesson Plan Construction
4. Lesson Presentations (Practice Teaching)
5. Methods of Instruction
6. Classroom and Laboratory Organizational Techniques

Following are samples of the participant's responses to the above question (responses are written as received).

1. Material Development -

   The exposure to all phases of vocational education will benefit me greatly in the years to come. During the institute, I compiled a very complete set of notes, which together with all the handout sheets should prove to be a very valuable reference aid. Knowing where to look, how to look and why is the greatest asset that a teacher or instructor can possess.

* * *

2. Visual Aids -

As a new instructor, I can expand on the Audio Visual phase and use it both in the shop and the classroom.

* * *

The best part of the EPDA project was the Audio-Visual and getting up in front of the class. Also the part on testing evaluation, etc.

* * *

3. Lesson Plan Construction -

The part of the workshop that most benefited me was the making of lesson plans and presenting them to the other EPDA project personnel. Then going over the good and bad points of the lesson.

* * *

Lesson plans - writing them up for related - doing demonstrations for the class, with the TV camera and being critiqued by the entire class - doing a two week assignment for the start of school, was a really good tranquilizer for the first day of teaching.

* * *

The thing that helped me the most was the lesson plans (or the system to transfer my knowledge to students in small steps.) I also felt that our practice of teaching in front of others helped considerably.

* * *

The importance of lesson plans and how to make and use them was taught and retaught. The teacher educators and instructors used them also, which was a good selling point. Without a lesson plan, I feel sure that much information I want to teach would be skipped or forgotten.

* * *

The most significant aspect of the six weeks EPDA institute was learning how to prepare and present lesson plans. To go in front of a class without some sort of plan would be a waste of time. Not only does the plan help me in presenting the material but it helps to keep the students from getting me sidetracked. I also think the workshop was of a great benefit to me in that it gave me examples of problems that confront the teacher and how to solve them. You don't meet these problems everyday, but when you do, it brings back some of the things that were presented at the workshop. I never thought of flexibility before, but now I wonder what would have happened in my class since we went about eight or nine weeks without text books. We managed to get along and I don't think or feel that the students suffered that much.

* * *

The most significant aspect of the six-week institute, in my opinion, is the opportunity each teacher was given to prepare lesson plans and make their presentations in front of a group. This, I am certain, helped most teachers to face that first day of school with confidence, more than any other part of the institute program.

* * *

4. Lesson Presentations (Practice Teaching) - Class demonstrations were given by each potential instructor during the institute. Many of us had never done anything like this before. Needless to say, we were very nervous and self-conscious. The more demonstrations we gave the easier they became as we observed others mistakes, benefited by them, and became more confident. I only wish we had time to practice more on this valuable part of the institute. Perhaps in the future institutes, the class could be split up into smaller groups to allow more demonstrations to be given at one time.

* * *

The most significant aspect of the six-weeks institute was the application of lesson plans by doing. The fundamental of lesson plans, organization, discipline, and visual aids had been useful now and will be far more useful in the future when you can critique a full year of your own work.

* * *

The most significant thing that we accomplished was to do the practice teaching. I think more time could be spent on this and evaluate the lesson plans that we use with the teaching.

* * *

I feel that the sessions on presenting material the same way that we would in our own classrooms was the most significant part of the institute. I had taught for one year before attending the institute and I knew that I needed help and these sessions helped to show me my mistakes and to build confidence in myself.

* * *

The area that was most helpful to me were the practice teaching and the organizational instruction. In the presentation of lesson plans, the closed circuit TV was good.

* * *

As I had never spoken in front of a group, the sample short lessons I was allowed to present to the other members of the institute was most helpful. Although apprenhensive at first, I feel I have made tremendous progress in this area.

* * *

5. Methods of Instruction -

First of all, I would like to say that without the six weeks workshop, I would have been lost. Everything we covered was very important in someway, to our teaching. Making up the outlines each day was very helpful. Each time we had to get up and do a demonstration helped us get over being so nervous. I think this was most significant and beneficial to us. Everyday we spent there was a big help in starting school.

* * *

Even though I had taught for six months during the last school year, this experience helped me immensely. Not only did I have more confidence in front of my class, but it also helped me in making lesson planning easier and less time consuming.

* * *

6. Classroom and Laboratory Organizational Techniques -

Without the institute, I'm afraid my first year of teaching would have been spent "floundering around", trying to set up a system for grading, testing, discipline, checking progress, etc. with the workshop. I felt I was fairly well prepared to teach. It also showed me the importance of always trying to improve my teaching techniques.

* * *

Two aspects of the institute seem most significant to me. First, was the stress by the instructors "to be prepared" for the first two weeks of teaching school. This preparation, of course, was to be in line with good instructional techniques as presented to us throughout the six weeks. As a new instructor, this requirement was invaluable.

* * *

Having a person there in our trade for one day; rotation charts; progress charts; work layout; seating charts; attendance.

* * *

I feel that I would have been unable to teach without the six weeks institute. I would not have had any idea of where to start. The time was well spent in my way of thinking.

* * *

We were taught that being organized was half the value of a good instructor and this is certainly true.

* * *

Many good ideas on grading and discipline were given us at the workshop, which came in mighty handy for a new instructor.

* * *

I feel I have a long way to go to becoming a really effective teacher, but by improving on the things that were given me,in time I should make the grade. I feel that it is going to help me in planning my course for the future. I sure would have hated to start teaching without the information I received at the institute. I feel that it is a real asset to me to have been part of the institute.

* * *

The most significant aspect of the whole workshop is the fact that we covered so many important areas. We were exposed to all kinds of school problems. Not only were we exposed to them, but, we were given some ideas of how to handle them. Many of the problems were handled by persons with practical experience. It was good to do it in this manner.

* * *

Being given the opportunity to talk with an experienced Auto Mechanic's Teacher was most helpful. He gave me the benefit of his experience by relating where to expect problems, how to handle discipline problems and shared his ideas on how to run a smooth shop and use the shop foreman efficiently.

* * *

Unclassified Comments

I believe that the most significant aspect of the program was the realization that regardless of how much theory and how many speakers told of their experiences, along with the many books, papers, and pamphlets read, that we as new instructors, would be dealing with roughly twenty different individuals. The problem would not go away by trying to instruct these individuals solely as a group. Provisions must be made to give individual attention to not only the low student, but also the high achiever.

* * *

A highlight of the institute was the guest speakers, who were experienced instructors in the vocational field. They gave us many different versions and ideas, plus handouts which were very helpful.

* * *

Speaking for myself, I know that without my experience and training as a student in the EPDA institute, I could not have lasted two weeks as an instructor. I feel that I will continue to teach welding as I am liking it more all the time. I am keeping all reusable material and information for future reference and use as was stressed by my teacher educator.

* * *

Yes, the institute was many hours of hard work, but I enjoyed every minute of it and am glad to have participated in such a rewarding project. I would recommend it to anybody.

* * *

I am very thankful for all the information I received during the institute. It was the greatest single factor in making my entry into the classroom as smooth as it was. It was a great experience for me, to say the least.

* * *

The most significant aspect of the six weeks workshop was the fact that the government would see the value and need of such a program, providing funds that make it possible for people, like me, to attend.

The expected influence of this program as to my future role is very foggy. The only thing I can think about is the people in the group and their individual abilities that seem to make me want to try harder.

* * *

The most significant aspect of the six week institute to me was the fact that the instructor has to assume that the student knows nothing at all about the trade he is studying. After teaching for half a year, I am finding this to be truer every day. Things that are habit or second nature to me have got to be pointed out to the student. I am sure that this fact will be kept in mind as much, if not more, than any other fact I learned at the institute.

* * *

Aside from the educational benefits derived from this program, there were "side-effects" which probably won't appear on the records. These were the wonderful associations and friendships built through those memorable six weeks among the participants in the workshop.

* * *

First let me say the six weeks institute in my opinion, after almost a semester of teaching, is a necessity for _all_ beginning vocational teachers. For any program to be successful, there has to be a well planned beginning. I think the program as a whole was exactly this.

Now, to nail down the most significant aspect of the program, I feel that the stress that was placed on motivation and discipline was the most helpful to me. With my background of teaching adults, I felt there would be very little difference adjusting to teaching high school age people. The thing I didn't take into consideration was the fact that in my four years of teaching adults, I never had to even give discipline or motivation a thought. The lectures and discussions in the workshop on on these two important aspects of teaching helped to change my mind in a positive manner.

As I said in the beginning, the six-weeks institute is a necessity for the beginning teacher. However, I don't believe _any_ program will necessarily turn out a good teacher. I think the program helped to make the participants aware of the many problems and challenges a teacher will have to face. The institute also helped to point out there are many approaches to a single problem. The important thing to remember is to face the problem in a positive manner and try to solve it in a way that suits the individual teacher's personality.

I personally don't think I am a good teacher yet. I do believe that with the help I have received to this point, I am headed in the right direction.

* * *

Learning that teaching is truly a profession. I would not expect to be able to continue without this program.

* * *

To me it seems it has been helpful in changing from the type of work in industry to what is required as a teacher; dealing with the student in comparison with adults; to be able to evaluate myself and to help become a good teacher.

* * *

The most significant aspect of the program was the guidelines which were presented that removed the apprehension of entering a classroom situation.

* * *

I see vocational education as perhaps the bigger change and possible the most important step in education. I intend to become the best possible instructor in my field.

* * *

Experienced teachers in our field coming in to help us in setting up our course of study. It gave me goals to reach out to in arriving at being a competent teacher in my field.

* * *

The six-week summer institute offered a good start and has influenced me to further my education.

* * *

The most significent aspect of this program on my role in the future is that it has reinforced my belief that vocational education is the force that will shape the future of the U.S. If vocational education is constantly improved and upgraded, the U.S. will continue to be a leading technical nation. Otherwise, it will decline as other nations have declined.

* * *

The wealth of knowledge gained in the summer of 1969 in the EPDA program was most significant. The class surrounding me with people having all different kinds of backgrounds and experiences, offered much to the learning situation. Has influenced me to further my education.

* * *

The most significant aspect of this program gave me a broader knowledge of what has been lacking in the education of our youth. My role in the future will be to help the student get more out of their schooling.

* * *

The program has caused me to decide to obtain a degree in education. This should help me be a better teacher in the future.

* * *

PART IV

IN-SERVICE EDUCATION PROGRAM

In-Service Phase

At the conclusion of the six-weeks institute, the participants returned to their local schools to assume full-time teaching responsibilities. The termination date of the institute was August 22, 1969. Concluding the institute approximately one week prior to the opening of school gave the teacher ample time to return to his laboratory and classroom and to prepare for the opening day of school. This also gave the teacher educator time to meet with each participant at the local school to answer questions and to assist the teacher with last minute preparations.

The in-service phase of the project resulted in the assigned EPDA teacher educators from each of the participating universities conducting observations and conference sessions on a one-to-one ratio on a bi-weekly basis. During the scheduled visits, (approximately, eighteen (18) during the school year), the teacher was observed by the teacher educator in both the laboratory and related classroom setting. Each observation by the teacher educator was recorded on a rating form and then discussed with the teacher during a scheduled conference period. Minor problems observed were discussed thoroughly with the teacher and possible solutions to the problems offered by the teacher educator during the conference session. All observation rating forms were then placed in the teacher's file for future reference and evaluation purposes. (See Appendix C-1 for types of forms used during the in-service observations). If particular problems occurred frequently or if the teacher educator noted specific weaknesses in the classroom procedure, assignments were given from textbooks and other supplemental materials to enable the participant to acquire and gather relevant materials to the particular problem encountered. In addition, if the problem was of a serious nature, study guide assignments were given by the teacher educator and then completed by the teacher and discussed at the following bi-weekly visitation. The study guides assigned were those that were developed and distributed by: The Instructional Materials Laboratory, The Ohio State University, Columbus, Ohio (See Appendix C-2 for two sample copies). The study guide procedure was unique because it permitted the teacher educator to tailor-make an in-service training program for each teacher around particular problems that the teacher encountered in his teaching assignment. Following is a list of study guide titles, which have been developed and are available from the Instructional Materials Center.

Title	Clock Hours	Title	Clock Hours
Purposes of Vocational Trade and Industrial Education	15	Methods of Group Instruction	20
Relationship of Vocational Instructor to Public School System	10	Methods of Individual Instruction	10
Relationship of Vocational Instructor to the Community	10	Organizing and Conducting Effective Demonstrations	10
Questioning Techniques	10	Principles of Learning	20
		Individualized Instruction in the Related Classroom	10

Title	Clock Hours	Title	Clock Hours
Conference Techniques in Teaching	20	Organizing and Operating Tool or Storage Rooms	10
Techniques of Developing Trade Skills	10	Collecting and Classifying Instructional Materials	15
Use of Laboratory Procedures in Teaching Trade Technology	5	Organizing and Using Shop Personnel Systems	10
Correlating Shop and Trade Technology Instruction	10	Developing Appropriate Student Conduct	15
Selection and Use of Teaching Aids	20	Organizing and Controlling Student Conduct	15
Use of Counseling Techniques	15	Sponsoring a Vocational Industrial Club	15
Instruction Sheet Writing	15	Care and Maintenance of Equipment	10
Trade and Occupational Analysis	20	Methods of Evaluating and Recording Student's Progress	15
Course Outline Writing	10	Developing and Using Objective Tests	20
Course of Study Construction	25	Relation of Standardized Tests to the Vocational Program	10
Preparing and Using Lesson Plans	10	Individual Differences	15
Effective Teaching of Safety	10		
Developing and Constructing Teaching Aids	15		

In addition to the bi-weekly visitations, each participant was required to attend ten (10) monthly seminars at each of the participating institutions. The seminars, which proved to be very effective to the success of the project were designed to supplement the bi-weekly visitations. The method of instruction at each seminar was developed around group participation as contrasted with the individualized approach utilized during the in-service visitation. The topics presented and discussed at the seminars were developed around major problems which were prevalent as observed by the teacher educator during the classroom observations.

At each seminar a formal presentation was made by either the EPDA staff or a consultant. In addition to the formal presentation, an important segment of each seminar was a discussion period (45 - 60 minutes) which was structured to enable the participants to discuss and share relevant problems and possible solutions with their colleagues (Appendix B-47 illustrates typical seminar agendas). Some discussion periods were developed around video tapings, which were conducted at the participant's local school and then presented at the seminar sessions for informational purposes as well as constructive criticism. A concerted effort was made at each seminar session to make the material as relevant as possible to current problems that the teacher encountered during the month so that correlation could take place with the materials presented in the seminar.

In-Service Objectives

General Objectives	Specific Objectives
10. To develop evaluations and teaching techniques under actual teaching conditions.	a. The teacher writes objective tests and uses them effectively.
	b. The teacher evaluates regularly to determine if he is achieving his goals.
	c. The teacher uses various questioning techniques to promote class involvement in the lesson.
	d. The teacher combines jobs, operations, and related information to the best advantage.
	e. The teacher develops and uses performance tests in the laboratory.
	f. The teacher uses instruction sheets in the laboratory and related class.

General Objectives	Specific Objectives
11. To provide the teacher with experiences in the development of instructional practices through actual classroom teaching.	a. The teacher will be able to face the classroom and teaching situations with confidence.
	b. The teacher will be able to construct, administer, and interpret such tests as are needed to evaluate pupil achievement.
	c. The teacher will demonstrate the ability to guide and control the learning experiences of the class as a group.
	d. The teacher will show an awareness of individual needs within the class and will make efforts to meet these individual needs as they pertain to the learning situation.
	e. The teacher will evaluate and record individual and class achievement.
12. To increase the teacher's knowledge of methods and media for transmitting trade skills and theory.	a. The teacher will be able to organize trade operations and knowledge into a logical sequence of teachable materials.

General Objectives	Specific Objectives
	b. The teacher will be familiar with the characteristics and uses of such instructional aid devices as: Overhead projectors; Sound Film Projector; Tape Recorder; Charts; Models and Supplemental Information Sources.
13. To provide opportunities for the professional teacher education staff to conduct and evaluate the in-service instructional experience.	a. The teacher educator will observe and evaluate the in-service teacher on a bi-weekly basis. b. The teacher educator will evaluate lesson plans prepared by the in-service teacher as to proper form and relevance of topics. c. The participant will develop materials essential for laboratory management (instruction sheets, progress charts, personnel systems, visual aids, etc.) d. The participant will complete assignment sheets assigned by the teacher educator in the area of instruction where weaknesses are noted. Assignment sheets will

General Objectives	Specific Objectives
	be evaluated and discussed by the teacher educator as part of the in-service evaluation.
14. To assist teachers in implementing individual programs during on-campus and in-service phases of the program.	a. The teacher organizes and conducts effective demonstrations. b. The teacher maintains acceptable standards of discipline. c. The teacher utilizes a personnel system. d. The teacher has established in effective daily plan of operation. e. The teacher develops materials specifically for his trade area. f. The teacher utilizes the principles of learning in conducting related and laboratory classes. g. The participant will be provided with reference materials, developed specifically for his subject area. h. The participant will be observed bi-weekly by a teacher-educator and given assistance on individual problems.

General Objectives	Specific Objectives
15. To provide opportunities to professional staff members to develop, implement and evaluate new teaching techniques and innovation experiences for pre-service and in-service teacher education.	a. Give the staff member an opportunity to develop an effective rapport with the new teacher through continuous contacts during the pre-service institute and the subsequent in-service program. b. Enable the staff member to utilize current techniques in the use of audio visual media. c. Give the staff member, on his in-service visits to the various vocational classes, the opportunity to observe the immediate needs of the teacher and then include instruction relevant to these needs in his in-service work with the teacher. d. Give the staff member the opportunity to observe needs that are common to his group of teachers in their schools and structure the monthly seminars to be relevant to the solution of these group problems.

Strengths and Weaknesses of the Program

The concensus of opinion of the EPDA staff concerning the strengths and weaknesses of the program (both the pre-service and in-service parts) are presented below. The items are not listed in order of preference or importance.

Strengths

1. Assignment of staff to EPDA staff exclusively - the full-time assignment of the staff permitted an in-depth treatment to the challenges of the project than would have been possible if the staff were required to assume responsibility for teachers under other teacher education patterns.
2. The payment of stipends to participants - for those new teachers who were experiencing a decreasing income adjustment as they entered teaching, the stipend was a welcomed incentive.
3. Orientation to program - since entering the teaching profession involves consideration of accreditations, degrees, etc., the help given in the pre-service institute in the area of orientation towards college work was a considerable help to the participants.
4. The length of the pre-service institute - the six-weeks duration of the institute offered time for in-depth

instruction in such areas as: lesson plans, visual aid instruction and evaluation. Other activities such as counseling with participants and individual attention in work sessions became a realistic part of the institute.

5. Consultants - The availability of consultants and outside resource people gave authenticity to the workshop and provided a wider cross-section of views than could have been possible if only the local staff operated the entire program.
6. Ratio of staff to participants - The favorable ratio of approximately 25 to 1 between participants and teacher educator contributed heavily to the good rapport which developed in the program.
7. Monthly seminars - Supplementing the bi-weekly visitation of the teacher educator to the participant's school is the monthly seminar. Here group instruction and discussion of needs, which have immediate relevancy becomes the center of attention. Here instruction of the group basis is handled as a follow-up or introduction to individual assignments.
8. The development of teacher confidence - Through the intensified training, the teachers were much more confident about starting to teach at the conclusion of the workshop than when they entered.

Weaknesses

1. Time and distance required to travel to locations of some school systems for the in-service training of the teachers.
2. The practices of many local Boards of Education of waiting until later in the summer to hire teachers. Many potential applicants to the program were barred from enrollment because of lack of official appointment of teacher openings. This necessitated the acceptance of some teachers into the program that already had some teaching experience.
3. Insufficient orientation of lecturers - in some cases lecturers arrived on the scene expecting to address themselves to a different group or situation than what really existed.
4. The lack of printed agendas and topics of the workshop for local administrators - requests were made by the local administrators for purposes of their own in-service work with their teachers, for copies of agenda topics that were covered in the institute. Agendas were not available to give them at the request time.

Project Summary Suggestions and Recommendations

Summary

A total of 130 applicants were accepted for and participated in the EPDA Project. There were 23 participants at the University of Cincinnati, 47 at Kent State University, 25 at the Ohio State University and 35 at the University of Toledo.

The schedule of activities and the content covered were similar at each of the participating universities. The content of the institute centered primarily around the following major categories:

1. Philosophy of vocational education.
2. Methods of teaching vocational education.
3. Teaching the disadvantaged student.
4. Psychology of the adolescent.
5. Instructional aids and media.
6. Classroom and laboratory management.
7. Selection and organization of course content.
8. Lesson plan development.
9. Professional ethics.

Specific topics for each of the above nine categories were presented using various teaching techniques of both group and individualized instruction. Group discussion methods were centered primarily around lecture, panel presentations, role playing, developmental method of instruction, simulation techniques and the conference technique. Individualized instruction centered primarily around the demonstration method and techniques of supervised study.

Major emphasis was placed on the immediate application of each method, i.e., whenever topics were presented by the EPDA staff or resource people, application of the presented material was immediate to facilitate correlation of subject matter.

In the majority of cases the participants were a homogeneous group in terms of educational level (high school diploma only), occupational experience (mean, 10 years), age, and aspirations. There was, however, one important instructional factor where differences were prevalent, that being the types of occupations represented within the group. This condition caused difficulty in the instructional program due to the fact that each occupational area is somewhat unique in terms of course content and classroom and laboratory management. This problem, however, was solved adequately through the use of consultants in small group presentations.

Suggestions and Recommendations

The following suggestions and recommendations are offered to assist persons who may conduct similar training institutes in vocational education. These suggestions were formulated by the staff and are based primarily on the participants responses as well as on the insights which the staff itself gained as a result of the institute.

1. The duration of the institute is of sufficient length. However, providing a follow-up institute as a first year of teaching seems necessary, i.e., a better approach might be to offer a pre-service institute of four weeks with a follow-up institute of two weeks at the conclusion of the first year of teaching.

2. The schedule of activities should include a specific time for social interaction. This gives the participants an opportunity to escape the activity they have been engaged in during the institute and it provides an excellent opportunity for them to talk with and get to know the staff and other participants on an informal basis. This informality might very well be a stimulant for some participants to express concerns and generate questions that otherwise would not be expressed.

3. Full-time staff should be hired to plan and conduct the pre-service phase of the program. To adequately prepare the teacher for the classroom, full-time involvement and committment is necessary. Maintaining a ratio of one staff member for every 25 participants should be maintained. This ratio provides for a bi-weekly visitation to the participants school classroom as well as provides adequate time for individualized help and assistance. In addition to the full-time assigned staff, lecturers possessing specific competencies should be utilized extensively. Local vocational directors, supervisors, vocational teachers as well as specialists in other academic disciplines add pertinent information and variety to the institute.

4. Total EPDA staff must be involved in the planning phase of the program. Carefully formulated objectives and activities for reaching the objectives must be discussed and agreed upon prior to the institute.

5. Informing local vocational administrators about the institute is critical to the success of the program. Since employment in a school system is a prerequesite for admission to the institute, the local administrator is in the key position to informing the

the prospective teacher during the initial interview. Because of the position the local administrator holds, the publicity must be directed towards him. Brochures announcing the institute and its unique features should be clearly formulated and concisely written. The brochure, institute application forms, and information sheets should be mailed at least five months prior to the institute because this is the prime time in which local administrators hire new teachers. Since the brochure must be mailed early, it is imperative that a follow-up letter be sent two months prior to the starting date. It is very important that all lecturers and consultants receive, prior to the institute, an outline outlining the objectives of the project, a suggested topical outline and background information on the participants. It is suggested that an outline be prepared for the lecturer by the EPDA staff so that relevant material is covered which the staff feels is important. This is not intended to mean that a rigid outline must be followed, but merely as a device to keep the lecturer on the particular topic and to make sure that certain basic items relevant to the topic are covered.

Based on the assumption that the majority of people in the morning hours tend to be more alert and receptive to new materials, it is recommended that material of a theoretical nature be presented during the morning session followed by an application of the theory during the afternoon sessions. Correlation of subject matter and immediate application ideally during the same day is highly recommended.

Methodologies

A. Small group discussions are necessary if problems related to a specific occupational area are to be discussed thoroughly, it is necessary that a consultant be used to meet with members of a specific occupational area to discuss particular problems and techniques and instruction, which are unique to that particular occupational area.

B. Lecture discussion - This method is beneficial when presenting specific factors, concepts, theories, and general points of interest. This method, however, has limitations because of the limited time for discussion.

C. Simulation - This useful technique involved the participants both individually and in groups to apply concepts and techniques involved in classroom and laboratory management. Simulation problems served as a potent stimulant in the interaction and continuation of intra-group and inter-group discussions and group-staff discussions.

D. Panel discussions - Experienced teachers and administrators served on panels and reacted to questions from the group. These panels should be chaired by a staff member. The panel discussions should be employed immediately after a brief presentation by the panel members. It is extremely helpful to have two or three structured questions ready for the panel members to discuss.

Major Contributions to the Success of the Institute

Following are ten (10) items, which have contributed to the success of the institute:

1. Expertise of staff.
2. Relevance of instructional materials to actual classroom teaching situations.
3. The eagerness, attitude, intelligence, and understanding of four fine groups of participants.
4. The cooperation given the program at each of the participating universities and the State Department of Education, Division of Vocational Education.
5. The inclusion of excellent lecturers, both academic and vocational.
6. The ratio of assigned staff to participants; approximately 25 to 1.
7. The length of the pre-service institute.
8. The in-service phase consisting of bi-weekly visitations by the teacher education staff.
9. Monthly seminars.
10. Pre-planned meetings and the combined effort in preparing materials.

PART V

EVALUATION

EVALUATION OF THE INSTITUTE

Section	Title of Section	Page
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C	Reactions of Participants to the Institute	161
D	Analysis of In-Service Performance of Participants	208
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EVALUATION SECTION A

Major Findings of Evaluation

Major Findings of The Institute Evaluation

The Institute evaluation was designed to provide answers to several questions regarding the aims of the program. The major findings are briefly described below.

Participant Reactions to the Institute:

1. A 41-item evaluative questionnaire was completed by each participant during the final week of the Institute. Items on which widespread agreement was found reflected participant satisfaction with: 1) the teaching of the use of audio-visual aids, 2) laboratory management procedures, 3) the use of microteaching techniques, 4) the use of panel discussion for topic presentations, 5) the immediate application of ideas taught, 6) the use of consultants with relevant experience from their own trade areas, and 7) the content of lectures on psychological principles of learning and behavior.
2. Rather consistent participant dissatisfaction was noted in relation to the presentations and/or content areas of: 1) philosophical foundations of vocational education and 2) evaluation of students. (For details of these findings, see Evaluation Section C, pp. 161.)

* * * * * *

Analysis of In-Service Performance of Participants:

During the In-Service phase of the Institute, participants were given ratings of their teaching competencies and professional activities.

3. Ratings given by Teacher-Educators throughout the year showed consistent improvement in nearly all areas of proficiency included on the rating scale employed.
4. Ratings given by Administrators were generally higher than those given by Teacher Educators or by the participants themselves.
5. Self-ratings by participants were consistently lower in all areas than ratings given by either Teacher-Educator or Administrators.
6. Mean scores for ratings of participants were between "Average" and "Good" for all categories of the rating scale.

   (See Evaluation Section D, pp. 208.)

* * * * * *

Comparisons were made among teacher groups from various vocational areas represented in the Institute. Analysis of these comparisons showed the following:

7. Dental Assistant teachers were rated considerably higher than the other teaching groups in all categories rated. This was true for ratings by Teacher Educators and Administrators, and for self-ratings.

8. Electricity teachers were rated consistently lower than other teacher groups when rated by Teacher Educators, Administrators, and for self-ratings.

9. While self-ratings of Cosmetology teachers were often lower than other teacher groups, ratings given them by Teacher Educators and Administrators were often higher then ratings given other teacher groups.

(See Evaluation Section D, pp. 208).

* * * * * *

Measurement of Institute Objectives:

In order to evaluate the extent to which Institute objectives were reached, analysis was made of participant performance on the achievement test employed, as well as the ratings of proficiency obtained during the In-Service phase of the Institute.

10. When rating scale items were grouped into subscales according to the Institute objectives to which they related, it was found that the mean ratings for each of the eight objectives were nearly the same and were reached to the same extent. The level which they attained was considered more than satisfactory, and was felt to be due to: 1) the time spend during the Institute in presenting the entire range of content outlined in the objectives and 2) the use of work-sessions in

order for participants to see the relevance of the content of the Institute.

11. While there was more variation in the extent to which the objectives were met as measured by the Institute achievement test, it was felt that satisfactory learning occurred in all content areas represented by the Institute objectives.
12. Intercorrelations of achievement test and rating scale items showed high relationships between acquired knowledge (as measured by the achievement test) and demonstrated proficiency (through participant ratings).

On the other hand, it was felt that better measurement of attainment of objectives could be obtained through revision of both achievement and rating instruments. Use of item analysis data is being employed in this effort for use in future Institute evaluations. (See Evaluation Section E, pp. 261).

EVALUATION SECTION B

Introduction to Evaluation

Evaluation

The product evaluation of the EPDA project constitutes relating outcome information to initial objectives. The staff did, in fact, perform a product evaluation using three instruments:

1. Institute questionnaire
2. Graduated evaluation rating form
3. General knowledge evaluation test

Each of the instruments will be described in terms of purpose, form, and obtained results. Interpretation of the results will be given relating outcomes to the objectives. No control group was employed in the evaluation of the project. The specific figures will be reported in the description of the instruments.

Institute Questionnaire

The institute questionnaire was administered to the participants the last week of the six weeks pre-service institute. The purpose of the questionnaire was to objectively determine if the topics presented were understandable and relevant to individual needs and problems. The participants responded to forty-one (41) items, which represented the topics or activities presented during the institute. The institute questionnaire is shown in the Appendix C-3. The items were evaluated using the following classification categories - Excellent, Good, Fair and Unsatisfactory. The participant checked the category which he felt best evaluated the relevance of that particular topic.

All responses were tabulated and the frequency and percentages for each item recorded. The responses are recorded on a summary sheet, both for total responses and percentages for each topic presentation. Each participating university summary sheet is considered separately, Tables XXXV, XXXVIII, XXXXI, and XXXXIV. Further, the participants were asked to respond to a column category titled "Constructive Comments". The comments received were grouped and summarized under the appropriate item categories. The constructive comments are grouped according to the participating universities, Tables XXXVI, XXIX, XXXXII, and XXXXV. Tables XXXVII, XXXX, XXXXIII, and XXXXVI are a composite evaluation of each topic. The data represented for each topic is the frequency of the responses for that particular item category. Also, the data is represented by percentages.

In-Service Graduated Evaluation Form

The purpose of the in-service graduated evaluation form was to objectively measure the teaching competencies of the teacher under actual teaching conditions. The instrument consists of 42 specific competencies considered important by the EPDA staff. The competencies evaluated were grouped under five major areas of concentration:

1. Teaching Methods and Techniques
2. Selection and Organization of Subject Matter
3. Classroom and Laboratory Management
4. Evaluation
5. Professionalism and Public Relations

The in-service graduated evaluation form is shown in the Appendix C-5. Each competency is evaluated on a graduated scale from one to five. A rating of five is considered excellent; likewise, a rating of one is considered unsatisfactory. The evaluator circled a number in each competency category, which he felt best described the observed performance. Each statement was scored and all statements were then summarized. If sufficient information was not available to effectively evaluate a teacher, a column at the right of the rating scale was to be used. Also included in the evaluation form was a "General Comment" section, where additional information was recorded relevant to the teacher's performance. The instrument was administered at five different intervals by three different evaluators. It was administered three times by the teacher educator during the in-service bi-weekly visitation, once by the local school administrator who had direct contact with the teacher and once by the teacher himself. Allowing the local administrator and the teacher to administer the instrument provided for an external evaluation. The dates of the administrations were:

1. November, 1969 - Teacher Educator
2. February, 1970 - Teacher Educator
3. May, 1970 - Teacher Educator
4. May, 1970 - Local Administrator
5. May, 1970 - Individual Teacher (Self)

The data obtained from each of the three instruments used in the evaluation of the project will be described in detail on the following pages.

Institute Final Examination

The institute final examination was administered during the last week of the pre-service institute. The examination was administered basically for two (2) reasons:

1. To evaluate the progress of each participant during the institute.
2. To enable the EPDA staff to assess the extent to which the project objectives were met.

The examination consists of 100 items. There were 30 true-false, 42 multiple choice and 28 matching. Each test item was constructed from the stated objectives of the project. The final examination is shown in the Appendix C-4.

EVALUATION SECTION C

Participant Reactions to Institute

University of Cincinnati

Institute Questionnaire Summary Sheet

TABLE XXXV

N-22

Topics Presented	Excellent		Good		Fair		Unsatisfactory	
	R	%	R	%	R	%	R	%
Survey of Vocational Education in Ohio	-	-	3	14	15	68	4	18
Prosser's Theories	1	5	7	31	12	55	2	9
Types of T & I Programs	7	32	6	27	9	41	-	-
Qualities of a good instructor	12	55	7	31	3	14	-	-
Types of Shop Demonstrations	15	68	5	23	2	9	-	-
Analysis Technique	7	32	13	59	2	9	-	-
Frequency Charts	3	14	8	36	9	41	2	9
Micro-Teaching on Television	17	77	5	23	-	-	-	-
Audio-Visual Aids	18	82	2	9	2	9	-	-
Job Operation and Job Planning Sheets	7	31	9	41	3	14	3	14
Principles of Learning, Psychology of the Adolescent and Motivation	-	-	10	45	12	55	-	-
The Lecture Method	15	68	7	32	-	-	-	-
The 4-Step Plan in Related Information	9	41	9	41	4	18	-	-
Developmental Method	3	14	15	68	4	18	-	-

University of Cincinnati - TABLE XXXV (Cont'd.)

Topics Presented	Excellent		Good		Fair		Unsatis-factory	
	R	%	R	%	R	%	R	%
Unique Problems of Inner-City Schools	2	9	13	59	3	14	4	18
Vocational Industrial Clubs of America (VICA)	2	9	16	73	4	18	-	-
Individualized Instruction and Supervised Study	6	27	3	14	11	50	2	9
Bird Method of Instruction	12	55	6	27	2	9	2	9
Personnel Systems and Student Records	-	-	3	14	13	59	6	27
Progress Charts	3	14	13	59	6	27	-	-
How to Conduct a Field Trip	2	9	1	5	15	68	4	18
Teacher Liability	16	73	6	27	-	-	-	-
Conference Techniques	4	18	12	55	6	27	-	-
Shop Rules and Regulations	9	41	10	45	3	14	-	-
Housekeeping	15	68	7	32	-	-	-	-
Panel "Tips to the Beginning Teacher"	11	50	8	36	3	14	-	-
Evaluation	-	-	3	14	14	63	5	23
Panel "Motivation of Students"	7	32	13	59	2	9	-	-
Rotation of work	2	9	15	68	5	23	-	-
Maintenance systems, inventory, ordering supplies and materials, school records and school forms	6	27	11	50	5	23	-	-

University of Cincinnati - TABLE XXXV (Cont'd.)

Topics Presented	Excellent		Good		Fair		Unsatis-factory	
	R	%	R	%	R	%	R	%
Safety in Your Shop	15	68	3	14	4	18	-	-
Joint Vocational School Visitation	17	77	5	23	-	-	-	-
Subject "Guidance Teacher Relationship"	5	23	8	36	5	23	4	18
Related Presentations	9	41	10	45	3	14	-	-
Panel - Teachers from 1968 Workshop, Topic - Items Not Prepared for as Beginning Teachers	13	59	3	14	4	18	2	9
Case Studies in Discipline	3	14	6	27	6	27	7	32
State Achievement Tests and Text Writing	4	18	8	36	6	28	4	18
Teacher Educator's Role in School Visitations	17	77	3	14	2	9	-	-
Professional Ethics	7	32	11	50	4	18	-	-
Professional Organizations	9	41	7	32	6	27	-	-
Teacher Certification in Ohio	18	82	4	18	-	-	-	-

University of Cincinnati

Constructive Comments From Institute Questionnaire

TABLE XXXVI

Types of Shop Demonstrations -

I learned a lot from this demonstration (Sign Writers Cup 4 Step)

Analysis Techniques -

I feel it would have been more helpful if we could have worked on this during class.

I thought this was very good.

Micro-Teaching on Television -

This is excellent as you can see yourself and mistakes.

These were very helpful because we could see what we do wrong and how to improve.

Enjoyed this phase of training.

The T.V. showing of the different programs was an excellent opportunity to study ourselves - evaluate subjects. The visit to Springfield was an excellent idea - learned or received more information about other teacher's classes. Very good.

Audio-Visual Aids -

Should have had student participation in order for them to know how to work equipment.

Too many in group.

Did well in showing us, but most of these had been shown and explained beforehand. We should take part in doing more.

Audio-Visual Aids (continued) -

We should have to learn by doing or using ourselves. Have students do operation.

Good idea.

I would like to have learned how to really use some of those machines.

Should have had student participation in order for them to know how to work equipment.

No participation by students.

Enjoyed instructor.

Instructor not prepared.

I learned a lot, though I would have liked to watched a little closer, that is, been able to participate or stand around machines, and watch them being set and used.

Job Operation and Job Planning Sheets -

More job sheets should be made out and evaluated.

Might put more time on lesson plans and course outline.

I'm still a bit confused. Will learn more on job.

Principles of Learning, Psychology of the Adolescent and Motivation -

Needed more time.

Personnel Systems and Student Records -

Those from the supervisory capacity sometimes have a tendency to talk over the head of a beginning teacher. The beginner is most interested in grading, lesson plans, ways to improve their skills, etc.

Teacher Liability -

Not enough time and not enough detailed information.

Could have gone more fully into insurance available and where to get it.

University of Cincinnati - TABLE XXXVI (Cont'd.)

Evaluation -

Would like to spend or hear more on this subject.

More time could be spent on actual grading in the vocational area.

The program, as I see it, has been very complete. The only thing, I believe, there should be more of is Testing and Evaluation.

Panel "Motivation of Students" -

Not every instructor allowed questions and answers.

Enlightening - informative.

Not enough time.

Excellent consultants - they were great!

Joint Vocational School Visit -

There is no doubt in my mind that this program instilled much confidence to all of the class. A field trip should be a must, due to the success of the Springfield trip.

Program was well organized and maintained schedule. Consultants were very good, some of the subjects were harder to present and sometimes seemed a little boring, but this was no fault of the instructor. Field trip to Clark Co. School was well appreciated and a very good idea.

The field trip was helpful, but if arrangements could be made in all areas to have a person from it to talk to those interested in that field, it would be better.

If possible, more time should be allowed to visit home school to find specific needs to be discussed.

The field trip to Springfield was quite interesting. I gave everyone a chance to compare their school and their program with Springfield.

Related Presentations -

I would have hoped to have more individual participation.

University of Cincinnati - TABLE XXXVI (Cont'd.)

Panel - Teachers from 1968 Workshop, Topic - Items Not Prepared for as Beginning Teachers -

More time should be allotted for questions. There should be panels of teachers that had only taught one year because these people have their problems fresh in their minds and can relate them better.

This program was conducted extremely well. The only complaint would be the student should become more involved, less lectures, more classroom teachers to tell their experiences.

Without this program, I could never go into a classroom. Panel of one year teachers are not experienced enough to give opinions.

* * * * *

General Comments -

The overall course was great. I don't know how anyone has started to teach without it. I never have learned so much in so little an amount of time and had a nice time doing it.

The overall program was very well planned in order, organization, and content. I personally got more helpful information from teachers, then from the supervisors that came in.

Through this program, I am very confident in getting started in class and believe the experiences the instructors brought out were of great importance.

All in all, I don't see how I could have taught without this six weeks.

I feel that the program has been very beneficial to me. I feel much better prepared to enter the school year of teaching. Possibly, the length of the program should be reduced by one week.

Interpretation of Questionnaire Summary Sheet

The University of Cincinnati

TABLE XXXVII

Those topics, which rated extremely well with a seventy per cent (70%) or better (excellent) responses were the:

1. Micro teaching on television (77%)
2. Audio visual aids (82%)
3. Teacher liability (73%)
4. Joint vocational school visitation (77%)
5. Teacher educator's role (77%)
6. Teacher certification (82%)

Ratings over seventy per cent (70%) with a composite of excellent and good responses were the topics on:

1. Qualities of a good instructor (86%)
2. Types of shop demonstrations (91%)
3. Micro teaching on television (100%)
4. Audio visual aids (91%)
5. Job, operation and job plan sheets (72%)
6. The lecture method (100%)
7. Four step lesson plan (related) (82%)
8. Vocational industrial clubs (VICA) (82%)
9. The Bird Method of instruction (82%)
10. Progress charts (73%)
11. Teacher liability (100%)
12. Conference techniques (73%)

University of Cincinnati - TABLE XXXVII (Cont'd.)

13. Shop rules and regulations (86%)
14. Housekeeping (100%)
15. Panel Discussion "Tips to the Beginning Teacher" (86%)
16. Panel Discussion "Motivation of the Student" (91%)
17. Rotation of work (77%)
18. Maintenance systems, inventory, ordering supplies and materials, school records and school forms (77%)
19. Safety in your shop (82%)
20. Joint vocational school visitation (100%)
21. Related presentations (86%)
22. Panel "Experiences of First Year Teacher (73%)
23. Teacher educator's role (91%)
24. Professional Ethics (82%)
25. Professional Organizations (73%)
26. Teacher Certification in Ohio (100%)

Those topics, which were rated more often (excess of 50%) as fair and unsatisfactory were:

1. Survey of vocational education in Ohio (86%)
2. Prosser's Theories (64%)
3. Frequency charts (50%)
4. Principles of learning and psychology of the adolescent (55%)

University of Cincinnati - TABLE XXXVII (Cont'd.)

5. Individualized Instruction (59%)
6. Personnel systems and student records (86%)
7. How to conduct a field trip (86%)
8. Evaluation (86%)

Kent State University

Institute Questionnaire Summary Sheet

TABLE XXXVIII

N-45

Topics Presented	Excellent		Good		Fair		Unsatisfactory	
	R	%	R	%	R	%	R	%
Survey of Vocational Education in Ohio	10	23	20	44	13	29	2	4
Prosser's Theories	4	9	18	41	18	41	4	9
Types of T & I Programs	10	22	22	49	13	29	-	-
Qualities of a good instructor	22	49	20	45	3	6	-	-
Types of Shop Demonstrations	22	49	20	45	2	4	1	2
Analysis Technique	10	22	25	56	9	20	1	2
Frequency Charts	8	18	20	45	15	33	2	4
Micro-Teaching on Television	34	76	7	16	3	6	1	2
Audio-Visual Aids	33	74	8	18	3	6	1	2
Job Operation and Job Planning Sheets	13	29	29	65	3	6	-	-
Principles of Learning, Psychology of the Adolescent and Motivation	25	56	13	28	7	16	-	-
The Lecture Method	8	17	30	67	7	16	-	-
The 4-Step Plan in Related Information	25	56	18	40	2	4	-	-
Developmental Method	13	28	25	56	7	16	-	-

Kent State University - TABLE XXXVIII (Cont'd.)

Topics Presented	Excellent		Good		Fair		Unsatisfactory	
	R	%	R	%	R	%	R	%
Unique Problems of Inner-City Schools	14	31	20	45	10	22	1	2
Vocational Industrial Clubs of America (VICA)	13	29	29	65	2	4	1	2
Individualized Instruction and Supervised Study	13	29	29	65	2	4	1	2
Bird Method Of Instruction	23	51	20	45	2	4	-	-
Personnel Systems and Student Records	8	18	28	62	8	18	1	2
Progress Charts	16	36	25	56	4	8	-	-
How to Conduct a Field Trip	21	47	19	42	4	9	1	2
Teacher Liability	23	51	21	47	1	2	-	-
Conference Techniques	13	29	20	45	11	24	1	2
Shop Rules and Regulations	12	27	31	69	2	4	-	-
Housekeeping	6	13	36	80	3	7	-	-
Panel "Tips to the Beginning Teacher"	21	47	22	49	2	4	-	-
Evaluation	6	13	15	34	18	40	6	13
Panel "Motivation of Students"	17	37	20	45	8	18	-	-
Rotation of work	11	24	26	58	8	18	-	-
Maintenance systems, inventory, ordering supplies and materials, school records and school forms	1	2	22	49	21	47	1	2

Kent State University - TABLE XXXVIII (Cont'd.)

Topics Presented	Excellent R	Excellent %	Good R	Good %	Fair R	Fair %	Unsatisfactory R	Unsatisfactory %
Safety in Your Shop	25	56	17	37	3	7	-	-
Joint Vocational School Visitation	28	62	13	29	3	7	1	2
Subject "Guidance Teacher Relationship"	11	24	25	56	9	20	-	-
Related Presentations	31	69	11	24	3	7	-	-
Panel - Teachers from 1968 Workshop, Topic - Items Not Prepared for as Beginning Teachers	18	40	18	40	9	20	-	-
Case Studies in Discipline	14	31	25	56	6	13	-	-
State Achievement Tests and Test Writing	15	34	25	56	5	10	-	-
Teacher Educator's Role in School Visitations	25	55	20	45	-	-	-	-
Professional Ethics	31	69	14	31	-	-	-	-
Professional Organizations	13	29	29	64	3	7	-	-
Teacher Certification in Ohio	13	29	30	67	2	4	-	-

Kent State University

Constructive Comments From Institute Questionnaire

TABLE XXXIX

Survey of Vocational Education in Ohio -

More films or film strips.

Unnecessary.

Prosser's Theories -

Forgotton too easily. Wasn't tied down good enough.

Too early in program.

Ineffective.

Make an assignment to learn them.

Types of T & I Programs -

Wish there was more information on cosmetology.

Could be stressed a little stronger.

Qualities of a Good Instructor -

Very helpful.

Types of Shop Demonstrations -

Very good.

More demonstrations.

Confusing.

Analysis Techniques -

Would have helped if we had to do this.

Kent State University - TABLE XXXIX (Cont'd.)

Frequency Charts -

Too much time spent.

Would have helped if we had to do this.

I need more here.

Micro-Teaching On Television -

Not enough exposure or enough viewing of results.

Very helpful.

Excellent - great benefit.

What was the aim? Did it reach the goal?

Excellent.

Needed more of it.

Audio-Visual Aids -

One more day.

I would have liked more.

More time on this.

Assignment to go back and work there.

Part of it was good.

Needed more time.

Job Operation and Job Planning Sheets -

Very good organization.

Assignment to fill some out and turn in.

Principles of Learning, Psychology of the Adolescent and Motivation -

Should have small groups so you could ask more questions.

I had hoped for more on the adolescent.

Principles of Learning, Psychology of the Adolescent and Motivation (continued) -

A bit too drawn out.

Very helpful part of the workshop. Caused me to want to find out more in this area.

Too difficult to absorb in one session.

The 4-Step Plan in Related Information -

More work on this.

Developmental Method -

Could be explained more fully.

Confused with questioning technique.

Unique Problems of Inner-City Schools -

It was interesting, but I felt it was no help to me.

His presentation was good for his school, however, it was not good for new teachers.

Keep the cool, baby!

This topic, in my opinion, could be eliminated.

Individualized Instruction and Supervised Study -

Not enough.

One of the best exposure.

Bird Method of Instruction -

Will use.

Personnel Systems and Student Records -

Varies in so many ways, that it is hard to give.

Many items we cannot use.

Not enough.

Too much time.

Kent State University - TABLE XXXIX (Cont'd.)

Progress Charts -

Too much time spent.

How to Conduct a Field Trip -

We learned what not to do (only).

Teacher Liability -

There is still doubt in my mind as to the insurance coverage.

Conference Techniques -

Should have small groups.

Doesn't really apply to our teaching.

Good method to give you information.

Shop Rules and Regulations -

Very helpful.

Panel "Tips to the Beginning Teacher " -

Five minute talk of the panel was not necessary, but when we broke into trade groups it was very helpful.

Evaluation -

Too long.

Don't know anymore now than I did before.

More practice for beginning teachers.

I know I need more instruction here.

Excellent speaker, but presented in a dull way.

Evaluation should be made right after a subject is given so it's fresh in mind.

Too long.

Evaluation (continued) -

Incomplete.

I felt I knew as much before as I did after.

Very good, but too long.

Panel "Motivation of Students" -

Appreciate different methods.

Maintenance Systems, Inventory Orders, Ordering Supplies and Materials, School Records and School Forms -

Organize material next time.

Safety in Your Shop -

Safety is very important. I didn't care for the way it was presented this year.

Group conference would have been helpful.

Joint Vocational School Visitation -

A school with equipment already set up should have been chosen.

Could have been better utilized by visiting our own school shop for additional information.

I feel that it should have been to a completed school.

I thought it would have been more effective if the school would have been completed. Instead of seeing what was in a certain area they told us what was going to be in the area.

Learned much auxiliary information.

Food was wonderful. School beautiful. Treatment excellent. Very professional.

Meal was too expensive.

An insult to us who do not have this type arrangement.

Joint Vocational School Visitation (continued) -

Would have been better if school was completed.

I think these tours are really helpful. Puts your shop in perspective. Maybe more would help.

Subject "Guidance Teacher Relationship" -

Couldn't hear (poor atmosphere).

Related Presentations -

Very helpful.

Each person should have two-minute presentation everyday.

We didn't get enough exposure. Critique was fine, but took up valuable time.

Could use more.

Panel - Teachers from 1968 Workshop, Topic - Items Not Prepared for as Beginning Teachers -

I didn't think they were quite as specific as they could have been. Too much time taken up for summary.

I feel this should be strictly between panel and class. Teacher trainer took too much of the allotted time for our discussions.

One of the best.

Case Studies in Discipline -

The overhead projector situations were excellent.

Didn't really tell us anything.

Teacher Educator's Role in School Visitations -

Will be waiting.

Professional Ethics -

Not enough time spent.

Need to mention teacher attendance.

There was a definite need for this.

Professional Organizations -

Is there only one organization?

Teacher Certification in Ohio -

I still don't know.

Some people are still confused.

* * * * *

General Comments -

I would have liked to evaluate at the end of each day.

A gread deal of work and effort went into this workshop. Thank you.

This course is very good.

I needed one more day to spend in my own school. About the third or fourth week. Considering the fact that this is a new program and our instructors were both new to the job, I felt that it was a very good workshop. I enjoyed it and will benefit from it very much.

I have learned from all subjects. Please do not think I am a Polyanna as I sincerely felt all material was worthwhile.

I feel the teachers and planners really know their field and have gone to great extent to relate to us what it will be like. I have already experienced some things they talked of and because of it "knew what to do". I will be forever grateful.

I think you did an outstanding job. I believe with the teacher educator's help we will make good, confident teachers. We appreciate your cooperation and your willingness to do more than is required to help on your own time.

Kent State University - TABLE XXXIX (Cont'd.)

General Comments (continued) -

On the whole, the course was an excellent one.

I feel that if the teacher trainer is going to teach something, then he should practice what he teaches. Bring himself down to our level and get of the pedestal.

Interpretation of Questionnaire Summary Sheet

Kent State University

TABLE XXXX

Those topics, which rated extremely well with a seventy per cent (70%) or better (excellent responses) were:

1. Micro teaching on television (76%)
2. Audio-Visual aids (74%)

Ratings over seventy per cent (70%) with a composite of excellent and good responses were the topics on:

1. Types of trade and industrial programs (71%)
2. Qualities of a good instructor (94%)
3. Types of job demonstrations (94%)
4. Analysis techniques (78%)
5. Audio visual aids (92%)
6. Job operation and job plan sheets (94%)
7. Micro teaching on television (92%)
8. Principles of learning and psychology of the adolescent (84%)
9. The lecture method (84%)
10. The four step lesson plan (related) (96%)
11. The developmental method (84%)
12. Unique problems of inner-city schools (76%)
13. Vocational industrial clubs (VICA) (94%)
14. Individualized instruction (94%)
15. Bird Method of study (90%)

Kent State University - TABLE XXXX (Cont'd.)

16. Personnel systems and student records (80%)
17. Progress Charts (92%)
18. How to conduct a field trip (89%)
19. Teacher liability (98%)
20. Conference technique (74%)
21. Shop rules and regulations (96%)
22. Housekeeping (93%)
23. Panel Discussion "Tips to the Beginning Teacher" (96%)
24. Panel Discussion "Motivation of Student" (82%)
25. Rotation of work (82%)
26. Safety in your shop (93%)
27. Joint vocational school visitation (91%)
28. Guidance counselor-teacher relationship (80%)
29. Related presentations (93%)
30. Panel Discussion "Experiences of First Year Teachers" (80%)
31. Case studies in discipline (87%)
32. Achievement tests and test writing (90%)
33. Teacher educator's role (100%)
34. Professional ethics (100%)
35. Professional organizations (93%)
36. Teacher certification (96%)

Only one (1) topic was rated more often (excess of 50%) as fair and unsatisfactory:

1. Evaluation (53%)

The Ohio State University

Institute Questionnaire Summary Sheet

TABLE XXXXI

N-23

Topics Presented	Excellent		Good		Fair		Unsatis-factory	
	R	%	R	%	R	%	R	%
Survey of Vocational Education in Ohio	3	13	8	35	7	30	5	22
Prosser's Theories	2	9	10	43	8	35	3	13
Types of T & I Programs	1	5	7	30	11	48	4	17
Qualities of a good instructor	5	22	10	43	8	35	-	-
Types of Shop Demonstrations	3	13	13	57	3	13	4	17
Analysis Technique	3	13	9	39	9	39	2	9
Frequency Charts	13	56	8	35	2	9	-	-
Micro-Teaching on Television	16	70	6	26	1	4	-	-
Audio-Visual Aids	14	61	5	22	4	17	-	-
Job Operation and Job Planning Sheets	16	70	4	17	3	13	-	-
Principles of Learning, Psychology of the Adolescent and Motivation	5	22	10	43	3	13	5	22
The Lecture Method	3	13	8	35	8	35	4	17
The 4-Step Plan in Related Information	5	22	7	30	5	22	6	26
Developmental Method	8	35	6	26	6	26	3	13

The Ohio State University - TABLE XXXXI (Cont'd.)

Topics Presented	Excellent		Good		Fair		Unsatis-factory	
	R	%	R	%	R	%	R	%
Unique Problems of Inner-City Schools	2	9	5	22	10	43	6	26
Vocational Industrial Clubs of America (VICA)	9	40	7	30	7	30	-	-
Individualized Instruction and Supervised Study	6	26	9	39	5	22	3	13
Bird Method of Instruction	9	39	6	26	8	35	-	-
Personnel Systems and Student Records	10	43	9	40	4	17	-	-
Progress Charts	13	57	6	26	4	17	-	-
How to Conduct a Field Trip	4	17	9	40	6	26	4	17
Teacher Liability	8	35	9	39	6	26	-	-
Conference Techniques	3	13	13	57	3	13	4	17
Shop Rules and Regulations	7	30	10	44	3	13	3	13
Housekeeping	8	35	11	48	4	17	-	-
Panel "Tips to the Beginning Teacher"	17	74	6	26	-	-	-	-
Evaluation	5	22	9	39	4	17	5	22
Panel "Motivation of Students"	8	35	7	30	5	22	3	13
Rotation of work	7	30	12	52	4	18	-	-
Maintenance systems, inventory, ordering supplies and materials, school records and school forms	3	13	9	39	8	35	3	13

The Ohio State University - TABLE XXXXI (Cont'd.)

Topics Presented	Excellent		Good		Fair		Unsatisfactory	
	R	%	R	%	R	%	R	%
Safety in Your Shop	13	57	5	22	4	17	1	4
Joint Vocational School Visitation	6	26	9	39	5	22	3	13
Subject "Guidance Teacher Relationship"	7	30	11	48	5	22	-	-
Related Presentations	13	57	6	26	4	17	-	-
Panel - Teachers from 1968 Workshop, Topic - Items Not Prepared for as Beginning Teachers	16	70	6	26	1	4	-	-
Case Studies in Discipline	11	48	9	39	3	13	-	-
State Achievement Tests and Test Writing	6	26	12	52	5	22	-	-
Teacher Educator's Role in School Visitations	19	83	4	17	-	-	-	-
Professional Ethics	17	74	6	26	-	-	-	-
Professional Organizations	5	22	9	39	5	22	4	17
Teacher Certification in Ohio	15	65	5	22	3	13	-	-

The Ohio State University

Constructive Comments From Institute Questionnaire

TABLE XXXXII

Types of T & I Programs -

Very helpful in understanding T & I.

Good introduction and background to Vocational Education, especially T & I.

Liked talk very much.

An inspiration to hear.

Explanation of theorems very clear, obvious enthusiasm regarding Vocational Education.

Qualities of a Good Instructor -

Too much like military service.

No material given. Too long a lecture.

Repetition of Shop Management in most respects.

Too formal with students.

Lecture too much.

Not in complete agreement. But a good viewpoint.

Could have gone into qualities even further, but good as far as he went.

Types of Shop Demonstrations -

Really points out that this is the pattern to follow all year.

I think this was of great help to me. I understood.

I like the writer's cup.

Types of Shop Demonstrations (continued) -

Repeated to point of complete understanding.

More time needed.

Very important - helped me out considerably.

If it is any consolation, the 4 step method is now very clear and not a foreign language any longer.

Very good.

Very helpful.

Extremely interesting (held interest).

More time needed .

His explanations and help were valuable and the practical experience excellent.

Analysis Techniques -

More time needed.

Started very good process of analysis. Easily understood and motivated.

Micro-Teaching on Television -

Gave some irrelevant material before starting.

Not much chance to use.

Taught equipment well.

We could really see our mistakes.

A little long on evaluations.

Too much time taken up.

Most beneficial.

Possibly one day per week instead of four in a row. Learned a lot.

Audio Visual Aids -

Enjoyed the time spent.

Very interesting.

Time upstairs, some was wasted I felt.

Very helpful.

Very important.

Very good, learned a lot.

Excellent.

Could have been cut shorter.

Very good job.

I know that I would not have used the aids available without the class.

Too much.

Okay, but old.

Should be updated.

Audio a little poor.

Check sound on projector.

Too old, in most cases.

In good taste and choice - applicable.

Job Operation and Job Planning Sheets -

Not enough time.

More practice needed.

Could have spent more time.

A little scant on these sheets (I still may be hesitant on using).

I wanted to use these type sheets, but didn't know what to call them or how to write them up. Now I do.

Job Operation and Job Planning Sheets (continued) -

Not enough time.

More practice needed.

These were covered very well (to point of confidence in using).

Principles of Learning, Psychology of the Adolescent and Motivation -

Would like to see more.

More time needed.

Presentation was good, but around and around - nothing definite.

This was the most interesting to me.

Really good.

Very fine - very helpful.

Repeat next year!

Under a junior or senior is a person. We were made aware of the inner problems.

The Lecture Method -

Too long.

Really good.

Excellent instructor. Points were made clearly.

Did a very good job.

The 4-Step Plan in Related Information -

He was well organized - too much.

Too much at one time.

Too much paperwork to be understood in length of class time.

More time needed.

The 4-Step Plan in Related Information (continued) -

Good planning was arranged.

Well organized, sometimes abrupt, but extremely competent. I learned a lot.

Too regimented.

Developmental Method -

More time and practice needed.

He showed the what, why and how of questions and practice.

Vocational Industrial Clubs of America (VICA) -

His enthusiasm is fantastic!

He sure thinks a lot of VICA!

Too fast.

Good teaching aids.

Very enthusiastic.

Slides excellent.

Individualized Instruction and Supervised Study -

Too short.

A little long.

How to Conduct a Field Trip -

Good comparisons.

Very constructive.

Meeting with other instructors, very beneficial.

Learned of visual aids possibilities.

Informative

The Ohio State University - TABLE XXXXII (Cont'd.)

How to Conduct a Field Trip -

Good comparison of schools.

Enjoyed the trip.

Teacher Liability -

Nothing solved. Nice to know.

Very vague, didn't know the fee or give out information.

Film very good.

Shop Rules and Regulations -

Extremely congenial - good presentation.

Liked very much.

Very interesting to listen to.

Too much. Well organized.

Very helpful.

Again, too much content to pick up in short amount of time.

His enthusiasm was contagious - very well prepared and informative.

Evaluation -

Went pretty fast.

Too long.

I had no idea that so much went into the making of tests. The explanation of the "I.Q.", etc. was excellent.

Maintenance Systems, Inventory, Ordering Supplies and Materials, School Records and School Forms -

Lost time.

Felt whole day rather irrelevant to my situation.

Too long and should have each school's system.

Maintenance Systems, Inventory, Ordering Supplies and Materials, School Records and School Forms (continued) -

Had good information sheets and aids.

Would have been better if not completely orientated to one school.

Good example of an efficient school director.

He made me aware of all the types of supplies and equipment we are concerned with.

Not applicable information.

Could have been more relaxed with more material.

Safety in Your Shop -

Way too long.

Very interesting.

Good teaching aids.

Interesting and educational presentation.

Good presentation.

Film excellent. Presentation very good. Made the point clear.

Joint Vocational School Visitation -

Go over things to ask before visiting school.

No one at school.

Not much accomplished.

Would like to have gone at later date.

Essential.

A lot of information, but not necessary for all day.

Subject "Guidance Teacher Relationship" -

Too long.

Very interesting.

Good material, could have been presented more interestingly.

The Ohio State University - TABLE XXXXII (Cont'd.)

Related Presentations -

Served its purpose well.

Maybe not enough times.

Went a little slow.

This is my weak point. I need more of this.

Perhaps one session only on T.V.

Builds confidence.

Too long, should be broken up.

I thought this was excellent in building confidence only to be surpassed by T.V.

Should have a time limit on each and the evaluation.

Most needed for self-practice.

Got a lot of butterflies out - The practical experience is the best teacher.

Panel - Teachers From 1968 Workshop, Topic - "Items Not Prepared For as Beginning Teacher"

Too short.

Really good.

Could have been more helpful if each had prepared short experience ahead.

Not really beneficial.

Possibly more in detail, but good.

Case Studies in Discipline -

I thought the application on our part was overdone.

Thought way overdone on negative demonstration.

More time needed.

The Ohio State University - TABLE XXXXII (Cont'd.)

Case Studies in Discipline - (continued) -

Very good example.

Good aids.

Didn't like role playing experience.

Went to extremes.

Repeat next year, should be even better.

Enjoyed the students, and the implications overacted for a definite purpose.

Very well planned.

Professional Organizations -

Very well done.

Don't know when to join yet.

Too close to O.E.A., made too much for that day.

Not enough depth in presentation. Left me hanging in many areas.

I wasn't aware of all the organizations and the uses.

* * * * *

General Comments -

Very good program. Thanks for all the answers. I hope I can use half of what has been discussed.

The overall program was very well performed, and a great advantage to all individuals.

I think it was interesting. I feel that all teacher educators did a fine job. I hope that maybe someday I might be asked to help with this job.

To me it was a very rewarding school and I would like to thank everyone very much.

I'm most happy to have been in the right place at the right time. I wonder now at my nerve of having thought I could do this with perhaps only one or two weeks preparation.

The Ohio State University - TABLE XXXXII (Cont'd.)

General Comments (continued) -

Without course, I feel it would be next to impossible to conduct a class. I feel it helped me very much.

Like all plans in a program, there are sections where too much time is taken for not too important things and not enough time allotted for the important. My own plan for the coming year will probably be the same. It's always best "the second time around". My test may not show the knowledge gained, but my year ahead should show something. To learn and enjoy oneself too, means you had a good plan in my estimation. Thank you.

I think you have done an excellent job by not being strictly sour but having a good sense of humor.

I think the course was excellent.

More practice teaching.

A very good institute.

Excellent facilities. Excellent program. Thanks much to you and staff for your help and patience. Will look forward to working with you.

Felt very appreciative of chance to participate in program. Afraid this year would have been most apprehensive without it.

I wished we could have started earlier and had a few weeks to prepare for school. We really had to cram a lot, but I think it will really pay off. Thank you again for being so kind and tolerating.

This course did help some nervousness and doubt.

I'm not sure how effective I'll be as a teacher, but I have a lot more confidence in myself thanks to you and your program.

I feel much more confident in the teaching profession now than six weeks ago and am looking forward to September. Thank you.

Interpretation of Questionnaire Summary Sheet

The Ohio State University

TABLE XXXXIII

Those topics, which rated extremely well with a seventy per cent (70%) or better (excellent) responses were the:

1. Micro teaching on television (70%)
2. Job, Operation and Job Planning Sheets (70%)
3. Panel discussion "Tips to the Beginning Teacher" (74%)
4. Panel discussion "Experiences of First Year Teachers" (70%)
5. The teacher-educator's role (83%)
6. Professional ethics (74%)

Ratings over seventy per cent (70%) with a composite of excellent and good responses were the topics on:

1. Frequency Charts (91%)
2. Micro-teaching on television (96%)
3. Audio-Visual aids (83%)
4. Job Operation and Job Plan Sheets (87%)
5. Personnel systems and student records (83%)
6. Progress Charts (83%)
7. Teacher liability (74%)
8. Shop rules and regulations (74%)
9. Housekeeping (83%)
10. Rotation of work (82%)

The Ohio State University - TABLE XXXXIII (Cont'd.)

11. Panel "Tips to the beginning teacher" (100%)
12. Rotation of work (82%)
13. Safety in the shop (79%)
14. Guidance-teacher relationship (78%)
15. Related presentations (83%)
16. Panel discussion "Experiences of First Year Teachers" (96%)
17. Case studies in discipline (87%)
18. Achievement tests and test writing (78%)
19. Teacher-educator's role (100%)
20. Professional ethics (100%)
21. Teacher Certification (87%)

Those topics, which were rated more often (excess of 50%) as fair and unsatisfactory were:

1. Survey of Vocational Education in Ohio (52%)
2. Types of Trade and Industrial Programs (65%)
3. The lecture method (52%)
4. Unique problems of inner-city schools (69%)

University of Toledo

Institute Questionnaire Summary Sheet

TABLE XXXXIV

N-32

Topics Presented	Excellent		Good		Fair		Unsatisfactory	
	R	%	R	%	R	%	R	%
Survey of Vocational Education in Ohio	9	28	11	35	10	31	2	6
Prosser's Theories	-	-	11	34	16	50	5	16
Types of T & I Programs	11	35	17	53	1	3	3	9
Qualities of a good instructor	19	59	10	32	3	9	-	-
Types of Shop Demonstrations	15	47	12	38	4	12	1	3
Analysis Technique	13	41	10	31	8	25	1	3
Frequency Charts	6	19	18	56	3	9	5	16
Micro-Teaching on Television	13	41	12	38	7	21	-	-
Audio-Visual Aids	-	-	2	6	22	69	8	25
Job Operation and Job Planning Sheets	7	22	16	50	7	22	2	6
Principles of Learning, Psychology of the Adolescent and Motivation	23	72	5	16	4	12	-	-
The Lecture Method	12	38	12	38	8	24	-	-
The 4-Step Plan in Related Information	15	47	13	41	4	12	-	-
Developmental Method	18	56	8	25	4	13	2	6

University of Toledo - TABLE XXXXIV (Cont'd.)

Topics Presented	Excellent		Good		Fair		Unsatis-factory	
	R	%	R	%	R	%	R	%
Unique Problems of Inner-City Schools	17	53	12	38	3	9	-	-
Vocational Industrial Clubs of America (VICA)	8	25	18	56	6	19	-	-
Individualized Instruction and Supervised Study	15	46	12	38	5	16	-	-
Bird Method Of Instruction	6	19	8	24	11	35	7	22
Personnel Systems and Student Records	13	41	17	53	2	6	-	-
Progress Charts	15	46	11	35	6	19	-	-
How to Conduct a Field Trip	5	16	19	59	7	22	1	3
Teacher Liability	17	53	8	25	7	22	-	-
Conference Techniques	22	68	10	32	-	-	-	-
Shop Rules and Regulations	9	28	21	66	2	6	-	-
Housekeeping	23	72	5	16	4	12	-	-
Panel "Tips to the Beginning Teacher"	25	78	7	22	-	-	-	-
Evaluation	-	-	5	16	16	50	11	34
Panel "Motivation of Students"	17	53	10	31	5	16	-	-
Rotation of work	8	25	19	59	5	16	-	-
Maintenance systems, inventory, ordering supplies and materials, school records and school forms	13	41	10	31	7	22	2	6

University of Toledo - TABLE XXXXIV (Cont'd.)

Topics Presented	Excellent		Good		Fair		Unsatis-factory	
	R	%	R	%	R	%	R	%
Safety in Your Shop	17	52	10	32	5	16	-	-
Joint Vocational School Visitation	7	22	20	63	3	9	2	6
Subject "Guidance Teacher Relationship"	11	35	19	59	2	6	-	-
Related Presentations	25	78	5	16	2	6	-	-
Panel - Teachers from 1968 Workshop, Topic - Items Not Prepared for as Beginning Teachers	12	38	17	53	2	6	1	3
Case Studies in Discipline	7	22	6	19	17	53	2	6
State Achievement Tests and Test Writing	7	22	12	38	9	28	4	12
Teacher Educator's Role in School Visitations	13	40	13	40	6	20	-	-
Professional Ethics	19	59	9	28	4	12	-	-
Professional Organizations	5	16	13	40	9	28	5	16
Teacher Certification in Ohio	11	34	9	28	12	38	-	-

University of Toledo

Constructive Comments From Institute Questionnaire

TABLE XXXXV

Analysis Techniques -

Each staff member had a different interpretation of terms used and requirements for in various fields - very confusing!

Micro-Teaching On Television -

The time for VTR could be spent better. Suggest the people that are being taped be there - can act as students. Other people could receive other instruction or work on lesson plans in other room.

VTR time could have been better used if a group, of say five, would go to another room for taping and then reassemble for critique. Very good job by video crew.

Audio-Visual Aids -

Audio-visual very poorly planned by instructor. No individual help given more related material to be copied should be available - suggest slide rule information from minority trades.

Audio-visual should be more carefully planned. It certainly was not what I would expect from a school of higher learning. This was not the fault of our staff.

Could have combined audio-visual with visitation.

Job Operation and Job Planning Sheets -

If the coordination remains the same, one instructor should check operation sheets, one job sheets, etc. instead of one telling you this could be used as a job and another telling you this same sheet would be called an information sheet.

University of Toledo - TABLE XXXXV (Cont'd.)

Evaluations -

More teacher consultants to be in group work sessions.

Joint Vocational School Visitation -

Home schools visit should be made more often at the first part of the institute.

It would have been a great help to have spent each Friday in the home school instead of some of the work sessions.

Could have used another visitation to home school in the middle of the six weeks. Had many questions at that time back home.

It would be best to have another visitation about the middle of workshop, plus the ones that were scheduled.

Panel - Teachers from 1968 Workshop, Topic - Items Not Prepared for as Beginning Teachers -

Have teachers from the fields represented visit classroom more than one time.

* * * * *

General Comments -

Include one topic on notes arrangement. (Many of us were out of practice). Include a check-off list of all types of forms. The number of forms was not anticipated. The check-list would alert us to be sure we understood each one before attempting the next. Require home school to provide at least a test, manual or reference book, to use in this course as a starting point. Require a list of tools available for use on the first day of school. (Require these lists well in advance). A good institute. Thanks.

I am very much pleased on being able to attend this workshop. I know that the information that I have received will be very valuable in the years to come. Although I don't agree on some of the methods, I will try to understand and practice them as best I can.

University of Toledo - TABLE XXXXV (Cont'd.)

General Comments (continued) -

Course of study would probably be excellent if there was more coordination between the instructors.

A handout sheet at the beginning stating exactly what is expected from the class at the end of the session would be very helpful such as a fifty question test, not just a test, and what this test is to cover.

Need to emphasize "Educational Psychology" in relation to individual. Being disorientated, college life proved to be a frustrating experience. I have a husband and six children. I think I want to go for a degree, but am unable to decide if it would be healthy for me. I am aware of deficiences in grammer, writing, etc., but see no answer to solve or overcome these. Still, being a worthwhile experience, most incite was gained in more than "Learning to Teach". Had fun, enjoyed group, hate to break it up.

I feel that I have been fortunate to be able to attend this workshop. It has made me realize that I must work hard and put forth the best effort I can to be able to teach the student. It has been brought out in this workshop that a teacher must be fair to the student, this is one of my goals along with many others.

Shorten hours attendance of session, don't increase lunch hour. I think that assignments should have been clearly defined for purposes of the workshop - where workshop efficiency conflicts or may conflict, it should be pointed out to student.

Some of the instructors were very helpful. Some talked very low, it was hard to understand a lot of things that were presented.

This course should be a must! The six weeks is right! Very good organization.

The material handouts could have been put up in a book form.

University of Toledo - TABLE XXXXV (Cont'd.)

General Comments (continued) -

I think a class should not have to take notes. Facts should be printed so everyone knows what they are.

One instructor should teach one phase of the course.

Too much material was presented the first part of the program in relation to the end of the program.

It would have been a help to have been able to observe a regular school day with a teacher teaching a related and a manipulative lesson to high school students.

Teacher consultants should have been briefed more on topic of study.

In general, the program was good and being that it was the first it probably was excellent. With a few changes, I feel the future one will be excellent.

The program is ideal for new persons in the teaching profession.

It should have "more need to know" information, which could be used in the classroom and "less nice to know" information applying to the field.

I believe this six weeks workshop is the difference between my being a 69-70 teacher and not being one. With only one week, I doubt if I would have even attempted it.

Institute was very good, but I feel the last two weeks were shy on material and presentation. Work sessions are fine in place. I lost interest the last two weeks because the amount of material was not enough to keep me thinking. Work sessions would have been better if assignments were given and then carried out at home school where tools, equipment and text are.

I am very thankful for the Teacher Education Program. I would hate to face a class without it.

Interpretation of Questionnaire Summary Sheet

University of Toledo

TABLE XXXXVI

Those topics, which rated extremely well with a seventy per cent (70%) or better (excellent) responses were:

1. The principles of learning and psychology of the adolescent (72%)
2. Housekeeping (72%)
3. Panel Discussion "Tips to the Beginning Teacher" (78%)
4. Related presentations (78%)

Ratings over seventy per cent (70%) with a composite of excellent and good responses were the topics on:

1. Types of trade and industrial programs (88%)
2. Qualities of a good instructor (91%)
3. Types of shop demonstrations (85%)
4. Analysis techniques (72%)
5. Frequency charts (75%)
6. Micro-teaching on television (79%)
7. Job operation and job planning sheets (72%)
8. Principles of learning and the psychology of the adolescent (88%)
9. Lecture method (76%)
10. Four step lesson plan (related) (88%)
11. Developmental Method (81%)
12. Unique problems of the inner-city schools (91%)

University of Toledo - TABLE XXXXVI (Cont'd.)

13. Vocational industrial clubs (VICA) (81%)
14. Individualized instruction (74%)
15. Personnel systems and student records (94%)
16. Progress charts (81%)
17. How to conduct a field trip (75%)
18. Teacher liability (78%)
19. Conference techniques (100%)
20. Shop rules and regulations (94%)
21. Panel Discussion "Tips to the Beginning Teacher" (100%)
22. Panel Discussion "Motivation of Student" (84%)
23. Rotation of work (84%)
24. Maintenance systems, inventory, ordering supplies and materials, school forms and records (72%)
25. Safety in your shop (84%)
26. Joint vocational school visitations (85%)
27. Guidance counselor-teacher relationship (94%)
28. Related Presentations (94%)
29. Panel discussion "Experiences of First Year Teachers (91%)
30. Teacher educator's role (80%)
31. Professional ethics (87%)

Those topics which were rated more often (excess of 50%) as fair and unsatisfactory were:

1. Prosser's theories (66%)
2. Audio visual aids (74%)
3. Evaluation (84%)
4. Case studies in discipline (59%)

EVALUATION SECTION D

Analysis of In-Service Performance of Participants

Tables XXXXVII, XXXXVIII, XXXXIX, L, and LI present frequency distributions of ratings given by teacher educators, administrators, and participants for each of the forty-two (42) rating scale items. In each of the three (3) teacher educator's evaluations, each participant was rated by the same teacher educator. The tables also show the number of participants being rated on each item, the raw scores and percentages, which apply to each frequency and the overall means for each scale item.

In-Service Rating Scale Form Frequency Distribtuions

(Teacher Educator's First Evaluation)

Table XXXXVII contains the results of the frequency distributions of ratings obtained from the teacher educator's first evaluation. The evaluation was conducted during the month of November, two months after the opening of school. The mean (average rating) for every item in the scale was greater than 3.0, which was the "Average" category on the rating scale. The mean of all of the forty-two (42) item means (or grand mean) was 3.63. The majority of rated responses were recorded at the three (3) "Average", and four (4) "Good" levels. Three items (competencies) receiving the highest - five (5) "Excellent" ratings by percentages were:

1. (24) "Selects and orders special materials, supplies and equipment - 20.1%
2. (35) "Cooperates with supervisors and administrative personnel" - 25.5%
3. (39) "Has shown a willingness to function as a member of a committee - 9.6%

It must be noted, however, that competencies one (1) and two (2) above were only tabulated 94 and 92 times respectively. It is impossible to determine whether the percentages would have been this great had observations been made on all participants. The item receiving the lowest rating with a mean of 3.23 was the teacher competency No. 32 - "Applies the rules for item and testing construction in test development". The item receiving the highest rating with a mean of 4.13 was Item 35 - "Coöperates with supervisors and administrative personnel". Items 29-42 indicate a low number of responses by the evaluator. This was due to the inability of the evaluator to rate participants on these items at that point in the school year.

Frequency Distribution for the First of Three Teacher Educator Evaluations of Project Participants

TABLE XXXXVII

I. Teaching Methods and Techniques

ITEM	N	1		2		3		4		5		ITEM MEAN
		No.	%	No.	%	No.	%	No.	%	No.	%	
1	129			5	3.9	38	29.5	70	54.3	16	12.4	3.75
2	129	1	.8	5	3.9	52	40.3	64	49.6	7	5.4	3.55
3	129			7	5.4	57	44.2	53	41.1	12	9.3	3.54
4	128	1	.8	7	5.5	68	53.1	46	35.9	6	4.7	3.38
5	128			7	5.5	57	44.5	59	46.1	5	3.9	3.48
6	128			4	3.1	69	53.9	53	41.4	2	1.6	3.41
7	127			5	3.9	41	32.3	64	50.4	17	13.4	3.73
8	127			10	7.9	60	47.2	52	40.1	5	3.9	3.41
9	127			11	8.7	76	59.8	35	27.6	5	3.9	3.27
10	126			13	10.3	50	39.7	54	42.9	9	7.1	3.47
11	129			8	4.7	53	41.1	60	46.5	10	7.8	3.57
12	128			9	7.0	32	25.0	85	66.4	2	1.6	3.63

(continued)

TABLE XXXXVII

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
II. Selection and Organization of Subject Matter	13	129			3	2.3	68	52.7	58	45.0			3.43
	14	129			6	4.7	59	45.8	61	47.3	3	2.3	3.47
	15	125			6	4.8	38	30.4	66	52.8	15	12.0	3.72
	16	127			7	5.5	69	54.3	44	34.6	7	5.5	3.40
	17	108			2	1.9	59	54.6	34	31.5	13	12.0	3.54
	18	129			11	8.5	35	27.1	62	48.1	21	16.3	3.72
III. Classroom and Laboratory Management	19	129	1	.8	16	12.4	23	17.8	66	51.2	23	17.8	3.73
	20	129			4	3.1	28	21.7	74	57.4	23	17.8	3.90
	21	128			2	1.6	45	35.2	63	49.2	18	14.1	3.76
	22	127			2	1.6	46	36.2	67	52.8	12	9.5	3.70
	23	129			2	1.6	37	28.7	77	59.7	13	10.1	3.78
	24	90					12	13.3	60	11.7	18	20.1	4.07
	25	129			4	3.1	36	28.0	71	55.0	18	14.0	3.80
	26	128			7	5.5	41	32.0	60	46.9	20	15.6	3.73
	27	127	1	.8	4	3.2	53	41.7	48	37.8	21	16.5	3.66
	28	129			1	.8	42	32.6	64	49.6	22	17.1	3.83

(continued)

TABLE XXXXVII

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
IV. Evaluation	29	94			4	4.3	43	45.7	45	47.9	2	2.1	3.48
	30	94			3	3.9	39	41.5	46	49.0	6	6.4	3.59
	31	94			2	2.1	50	53.2	38	40.4	4	4.3	3.47
	32	93			5	5.4	63	67.7	24	25.8	1	1.1	3.23
	33	93			1	1.1	66	71.0	25	26.9	1	1.1	3.28
	34	94			4	4.3	46	49.0	40	42.6	4	4.3	3.48
V. Professionalism and Public Relations	35	94			2	2.1	8	8.5	60	63.8	24	25.5	4.13
	36	94			2	2.1	9	9.6	68	72.3	15	16.0	4.02
	37	91					21	23.1	59	64.8	11	12.1	3.89
	38	94			5	5.3	16	17.0	68	72.3	5	5.3	3.78
	39	92					13	14.1	61	66.3	18	19.6	4.05
	40	94			4	4.3	34	36.2	46	48.9	10	10.6	3.66
	41	63	1	1.6	1	1.6	25	40.0	34	54.0	2	3.2	3.56
	42	70					29	41.4	41	58.6			3.59

In-Service Rating Scale Form Frequency Distributions

(Teacher Educator's Second Evaluation)

Table XXXXVIII contains the results of the frequency distribution of ratings obtained from the teacher educator's second evaluation. The evaluation was conducted during the month of February, 1970, five months after the start of school. The mean for every item in the scale was greater than 3.0, which was the "Average" category of the rating scale. The item means of the second evaluation showed a slight increase over the first evaluation in thirty-three (33) item categories, four (4) remained unchanged and five (5) showed a decrease. While there was no statistical test made to determine whether the increase in item means was significant, there is a greater trend of slightly higher ratings on the second evaluation. The grand mean is 3.72, an increase of 0.92 over the first evaluation. Three items (competencies) receiving the highest ratings - 5% were:

1. (19) "Establishes and maintains acceptable standards of discipline" - 20.8%
2. (35) "Cooperates with supervisors and administrative personnel" - 30.1%
3. (39) "Has shown a willingness to function as a member of a committee" - 21.5%

The items receiving the lowest rating with a mean of 3.35 was the teaching competency 42 - "Is active in professional education organizations". Note: Only 69 participants were rated on this particular competency. The item receiving the highest rating with a mean of 4.23 was Item 35 - "Cooperates with supervisors and administrative personnel". Items 35-42 indicate a low number of responses by the evaluator because of insufficient information available at that time to effectively evaluate the teacher.

Frequency Distribution for the Second of Three

Teacher Educator Evaluations of Project Participants

TABLE XXXXVIII

I. Teaching Methods and Techniques

ITEM	N	1		2		3		4		5		ITEM MEAN
		No.	%	No.	%	No.	%	No.	%	No.	%	
1	125			3	2.4	36	28.8	69	55.2	17	13.6	3.80
2	125			6	4.8	49	39.2	56	44.8	14	11.2	3.62
3	125			2	1.6	54	43.2	54	43.2	15	12.0	3.66
4	125			6	4.8	60	48.0	50	40.0	9	7.2	3.50
5	125			5	4.0	41	32.8	72	57.6	7	5.6	3.65
6	125			1	.8	54	43.2	64	51.2	6	4.8	3.60
7	124			4	3.2	43	34.7	63	50.1	14	11.3	3.70
8	124			5	4.0	71	57.3	40	32.3	8	6.5	3.41
9	123			8	6.5	60	48.8	51	41.5	4	3.3	3.41
10	122			5	4.1	44	36.1	63	51.6	10	8.2	3.64
11	125			2	1.6	45	36.0	62	49.6	16	12.8	3.74
12	125			6	4.8	35	28.0	80	64.0	4	3.2	3.66

(continued)

TABLE XXXXVIII

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
II. Selection and Organization of Subject Matter	13	125			2	1.6	51	40.8	71	56.8	1	.8	3.57
	14	125			1	.8	48	38.4	74	59.2	2	1.6	3.62
	15	122			3	2.5	40	32.8	71	58.2	8	6.6	3.69
	16	125			8	6.4	51	40.8	62	49.6	4	3.2	3.50
	17	103			2	1.9	38	36.9	45	43.7	18	17.5	3.77
	18	125			6	4.8	38	30.4	55	44.0	26	20.8	3.81
III. Classroom and Laboratory Management	19	125	2	1.6	11	8.8	26	20.8	60	48.0	26	20.8	3.78
	20	125			4	3.2	28	19.2	79	63.2	18	14.4	3.89
	21	124			2	1.6	41	33.1	66	53.2	15	12.1	3.76
	22	125			3	2.4	36	28.8	72	57.6	14	11.2	3.78
	23	125			1	.8	26	20.8	82	65.6	16	12.8	3.90
	24	95			1	1.1	18	18.9	58	61.1	18	18.9	3.98
	25	125			2	1.6	32	25.6	80	64.0	11	8.8	3.80
	26	123			5	4.1	24	19.5	78	63.4	16	13.0	3.85
	27	124			3	2.4	41	33.1	63	50.8	17	13.7	3.76
	28	125					31	24.8	82	65.6	12	9.6	3.85

(continued)

TABLE XXXXVIII

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
IV. Evaluation	29	125			4	3.2	34	27.2	72	57.6	15	12.0	3.78
	30	125					52	41.6	69	55.2	4	3.2	3.62
	31	125			2	1.6	51	40.8	69	55.2	3	2.4	3.58
	32	125			4	3.2	57	45.6	51	40.8	13	10.4	3.58
	33	125					77	61.6	47	37.6	1	.8	3.39
	34	122			3	2.5	52	42.6	54	44.3	13	10.7	3.63
V. Professionalism and Public Relations	35	93					7	7.5	58	62.4	28	30.1	4.23
	36	93			1	1.1	10	10.8	65	69.9	17	18.3	4.05
	37	92					12	13.0	65	70.7	15	16.3	4.03
	38	93			3	3.2	11	11.8	75	80.6	4	4.3	3.86
	39	93			1	1.1	22	23.7	50	53.8	20	21.5	3.96
	40	93			2	2.2	31	33.3	47	50.5	13	14.0	3.76
	41	69			1	1.4	24	34.8	42	60.9	2	2.9	3.65
	42	69					45	65.2	24	34.8			3.35

In-Service Rating Scale Form Frequency Distribution

(Teacher Educator's Third Evaluation)

Table XXXXIX contains the results of the frequency distribution of ratings obtained from the teacher educator's third and final evaluation. The evaluation was conducted during the month of May, one month prior to the closing of the school year. The mean for every item in the scale was greater than 3.0, which was the "Average" category of the rating scale. The grand mean was 3.79, a slight increase over the teacher educator's first and second evaluation. Item means increased in 32 item categories over the second evaluation. However, the following categories received a lower rating than they would during the first and second evaluation.

1. (24) "Selects and orders special materials, supplies and equipment"
2. (36) "Works as a member of a professional team in planning a suitable educational program for the vocational student"
3. (37) "Builds community support for the program of trade and industrial education"
4. (38) "Understands the principles of human relations applied to student, faculty and the community"
5. (39) "Has shown a willingness to function as a member of a community"
6. (40) "Provides leadership in group activities"

The majority of rated responses were recorded at the three (3) "Average" and four (4) "Good" levels. Three competencies receiving the highest percent of responses were:

1. (20) "Utilizes good housekeeping practices in his teaching - 25.4%
2. (26) "Has a safety program in operation" - 27.2%
3. (35) "Cooperates with supervisors and administrative personnel" - 39.4%

The competency receiving the lowest rating with a mean of 3.33 was Item 33 - "Knows the advantages, disadvantages and applications of each type of test item". The competency receiving the highest rating with a mean of 4.26 was Item 35 - "Cooperates with supervisors and administrative personnel.

Frequency Distribution for the Third of Three

Teacher Educator Evaluations of Project Participants

TABLE XXXXIX

I. Teaching Methods and Techniques

ITEM	N	1		2		3		4		5		ITEM MEAN
		No.	%	No.	%	No.	%	No.	%	No.	%	
1	127			2	1.6	25	19.7	79	62.2	21	16.5	3.94
2	127			4	3.2	36	28.3	77	60.6	10	7.9	3.73
3	127			5	3.9	30	23.6	77	60.6	15	11.8	3.80
4	127	2	1.6	4	3.2	42	33.1	66	52.0	13	10.2	3.66
5	127			3	2.4	38	29.9	80	63.0	6	4.7	3.70
6	127			2	1.6	33	26.0	85	66.9	7	5.5	3.76
7	127	1	.8	2	1.6	20	15.7	88	69.3	16	12.6	3.91
8	126	1	.8	4	3.2	40	31.7	71	56.3	10	7.9	3.67
9	126			7	5.6	48	38.1	66	52.4	5	4.0	3.55
10	126			3	2.4	29	23.0	83	65.9	11	8.7	3.81
11	126	1	.8	3	2.4	24	19.0	86	68.3	12	9.5	3.83
12	126			2	1.6	27	21.4	95	75.4	2	1.6	3.78

(continued)

TABLE XXXXIX

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
II. Selection and Organization of Subject Matter	13	126			3	2.4	31	24.6	86	68.3	6	4.8	3.75
	14	126			1	.8	40	31.7	81	64.3	4	3.2	3.70
	15	125			6	4.8	20	16.0	90	72.0	9	7.2	3.82
	16	126			6	4.8	40	31.7	74	58.7	6	4.8	3.63
	17	126			1	.8	16	12.7	86	68.3	23	18.3	4.04
	18	126			6	4.8	19	15.1	77	61.1	24	19.0	3.94
III. Classroom and Laboratory Management	19	126	1	.8	10	7.9	19	15.1	69	54.8	27	21.4	3.88
	20	126	2	1.6	5	4.0	20	15.9	67	53.2	32	25.4	3.97
	21	126	1	.8	2	1.6	25	19.8	73	57.9	25	19.8	3.94
	22	126			1	.8	37	29.4	64	50.8	24	19.0	3.88
	23	126			4	3.2	29	23.0	70	55.6	23	18.3	3.89
	24	95					14	14.8	76	80.0	5	5.3	3.91
	25	127			1	.8	17	13.4	90	70.9	19	15.0	4.00
	26	125			5	4.0	16	12.8	70	56.0	34	27.2	4.06
	27	126			2	1.6	33	26.2	62	49.2	29	23.0	3.94
	28	127			2	1.6	21	16.5	86	67.7	18	14.2	3.94

(continued)

TABLE XXXXIX

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
IV. Evaluation	29	127			3	2.4	37	29.1	84	66.1	3	2.4	3.69
	30	127			2	1.6	30	23.6	89	70.1	6	4.7	3.78
	31	127			2	1.6	31	24.4	91	71.7	3	2.4	3.75
	32	127			3	2.4	56	44.1	67	52.8	1	.8	3.52
	33	127			4	3.2	78	61.4	44	34.6	1	.8	3.33
	34	127			5	3.9	41	32.3	70	55.1	11	8.7	3.69
V. Professionalism and Public Relations	35	94			1	1.1	11	11.7	45	47.9	37	39.4	4.26
	36	94			2	2.1	12	12.8	68	72.3	12	12.8	3.96
	37	94			2	2.1	20	21.3	59	62.8	13	13.8	3.88
	38	94			1	1.1	26	27.7	63	67.0	4	4.3	3.74
	39	94			1	1.1	30	31.9	58	61.7	5	5.3	3.71
	40	94			3	3.2	31	33.0	57	60.6	3	3.2	3.64
	41	71			1	1.4	19	26.8	48	67.6	3	4.2	3.75
	42	71					45	31.7	23	79.6	3	97.9	3.41

In-Service Rating Scale Form Frequency Distribution

(Administrator's Evaluation)

Table L contains the results of the frequency distribution of ratings obtained from the administrator who was directly responsible for the teacher during the in-service phase of the project. The administrator evaluated the teacher during the month of May. In order that an independent evaluation could be made, the teacher was evaluated by the administrator in both the laboratory and classroom setting. The mean for every item in the scale was greater than 3.0, which was the average category on the rating scale. The grand mean was 3.87; slightly higher than the teacher educator's third evaluation, which also was made during the month of May. The majority of responses were recorded at the three (3) "Average" and four (4) "Good" levels. Three competencies receiving the highest five (5) "Excellent" rating by per cent were:

1. (35) "Cooperates with supervisors and administrative personnel - 58.4%
2. (37) "Builds community support of the program of trade and industrial education" - 41.5%
3. (39) "Has shown a willingness to function as a member of a committee" - 43.5%

The two (2) items receiving the lowest rating with a mean of 3.61 were the teacher competencies four (4) - "Expresses himself (herself) orally," and nine (9) "Possesses skill in leading group discussions". The item receiving the highest rating with a mean of 4.46 was the teaching competency 35 - "Cooperates with supervisors and administrative personnel". Although the grand mean of the administrators was higher than that of the teacher educators, the administrators recorded more responses at the one (1) "Unsatisfactory" level than did the teacher educator.

Frequency Distribution For Administrator Evaluations

Of Project Participants

TABLE L

I. Teaching Methods and Techniques

ITEM	N	1		2		3		4		5		ITEM MEAN
		No.	%	No.	%	No.	%	No.	%	No.	%	
1	123	1	.8	3	2.4	28	22.8	70	56.9	21	17.1	3.87
2	124	3	2.4	5	4.0	29	23.2	72	57.6	16	12.8	3.74
3	124			2	1.6	36	29.0	60	48.4	26	21.0	3.89
4	113	2	1.8	3	2.7	46	40.7	48	42.5	14	12.4	3.61
5	122	2	1.6	4	3.3	42	34.4	49	40.2	25	20.5	3.75
6	125	1	.8	7	5.6	40	32.0	58	46.4	19	15.2	3.70
7	103	2	1.9	4	3.9	31	30.1	49	47.6	17	16.5	3.73
8	114			9	7.9	28	24.6	49	43.0	28	24.6	3.84
9	117			6	5.1	45	38.5	55	47.0	11	9.4	3.61
10	121			6	5.0	46	38.0	44	36.4	25	20.7	3.73
11	124	2	1.6	5	4.0	27	21.8	58	46.8	32	25.8	3.91
12	121	1	.8	3	2.5	31	25.6	62	51.2	24	19.8	3.87

(continued)

TABLE L

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
II. Selection and Organization of Subject Matter	13	123			5	4.1	44	35.8	59	48.0	15	12.2	3.68
	14	121	1	.8	4	3.3	30	24.8	60	49.6	26	21.5	3.88
	15	121	1	.8	6	5.0	28	23.1	52	42.1	35	28.9	3.93
	16	110	1	.9	3	2.7	37	33.6	56	50.9	13	11.8	3.70
	17	117	3	2.6	1	.9	16	13.7	64	54.7	33	28.2	4.05
	18	123	3	2.4	3	2.4	16	13.0	62	50.4	39	31.7	4.07
III. Classroom and Laboratory Management	19	124	5	4.0	8	6.5	21	16.9	57	46.0	33	26.6	3.85
	20	124	1	.8	8	6.5	26	21.0	50	40.3	39	31.5	3.95
	21	119	3	2.5	8	6.7	22	18.5	48	40.3	38	31.9	3.92
	22	121	3	2.5	7	5.8	29	24.0	54	44.6	28	23.1	2.80
	23	123	3	2.4	6	4.9	29	23.6	54	43.9	31	25.2	3.85
	24	122			3	2.5	33	27.0	52	42.6	34	27.9	3.96
	25	121	1	.8	3	2.5	26	21.5	68	56.2	23	19.0	3.90
	26	116			2	1.7	30	25.9	61	52.6	23	19.8	3.91
	27	109	2	1.8	9	8.3	27	24.8	47	43.1	24	22.0	3.75
	28	125	1	.8	5	4.0	20	16.0	63	50.4	36	28.8	4.02

(continued)

TABLE L

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
IV. Evaluation	29	109			2	1.8	43	39.5	47	43.1	17	15.6	3.72
	30	122			3	2.5	37	30.3	56	45.9	26	21.3	3.86
	31	118			4	3.4	28	23.7	62	52.5	24	20.3	3.90
	32	79			1	1.3	34	43.0	35	44.3	9	11.4	3.66
	33	76			1	1.3	27	35.5	37	48.7	11	14.5	3.76
	34	116	2	1.7	2	1.7	26	22.4	55	47.4	31	26.7	3.96
V. Professionalism and Public Relations	35	125			4	3.2	7	5.6	41	32.8	73	58.4	4.46
	36	123	1	.8	6	4.9	17	13.8	50	40.7	49	39.8	4.14
	37	118	2	1.7	3	2.5	14	11.9	50	42.4	49	41.5	4.19
	38	121	1	.8	7	5.8	22	18.2	51	51.1	40	33.1	4.01
	39	108	1	.9	3	2.8	18	16.7	39	36.1	47	43.5	4.19
	40	104	1	1.0	7	6.7	35	33.7	42	40.4	19	18.3	3.68
	41	99	3	3.0	2	2.0	27	27.3	37	37.4	30	30.3	3.90
	42	98			7	7.1	35	35.7	38	38.8	18	18.4	3.68

In-Service Rating Scale Form Frequency Distribution

(Self-Evaluation)

Table LI contains the results of frequency distribution ratings obtained from the self-evaluation. The teacher (participants) were asked during the month of May to evaluate themselves, again to obtain an independent evaluation. The mean for every item in the scale ratings was greater than 3.0, which was the "Average" category on the rating scale. The grand mean was 3.69. The majority of responses were recorded at the three (3) "Average" and four (4) "Good" levels. Three (3) competencies receiving the highest five (5) or "Excellent" rating by per cent were:

1. (28) "Instructs students in the care and conservation of equipment and materials" - 29.3%
2. (35) "Cooperates with supervisors and administrative personnel" - 46.7%
3. (37) "Builds community support for the program of trade and industrial education" - 30.3%

The item receiving the lowest rating with a mean of 3.28 was Item 9 - "Possesses skill in leading group discussions". The item receiving the highest rating with a mean of 4.07 was the teaching competency No. 28 - "Instructs students in the care and conservation of equipment and materials".

I. Teaching Methods and Techniques

Frequency Distribution of Self Ratings By Project Participants

TABLE LI

ITEM	N	1		2		3		4		5		ITEM MEAN
		No.	%	No.	%	No.	%	No.	%	No.	%	
1	123			1	.8	51	41.5	63	51.2	8	6.5	3.63
2	124			2	1.6	53	42.7	63	50.8	6	4.8	3.59
3	124					39	31.5	73	58.9	12	9.7	3.78
4	121	1	.8	12	9.9	55	45.5	46	38.0	7	5.8	3.38
5	124			3	2.4	48	38.7	64	51.6	9	7.3	3.64
6	124	1	.8	5	4.0	47	37.9	59	47.6	12	9.7	3.61
7	124	1	.8	5	4.0	43	34.7	58	46.8	17	13.7	3.69
8	122			17	13.9	60	49.2	30	24.6	15	12.3	3.35
9	123	1	.8	11	8.9	66	53.7	42	34.1	3	2.4	3.28
10	121	1	.8	20	16.5	42	34.7	43	35.5	15	12.4	3.42
11	124			4	3.2	38	30.6	66	53.2	16	12.9	3.76
12	122	1	.8	3	2.5	28	23.0	67	55.0	23	18.9	3.89

(continued)

TABLE LI

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
II. Selection and Organization of Subject Matter	13	123			1	.8	48	39.0	65	52.8	9	7.3	3.67
	14	124			1	.8	52	41.9	59	47.6	12	9.7	3.66
	15	122	1	.8	6	4.9	45	36.9	60	49.2	10	8.2	3.59
	16	124			6	4.8	61	49.2	46	37.1	11	8.9	3.50
	17	124					50	40.3	53	42.7	21	16.9	3.77
	18	123			3	2.4	40	32.5	56	45.5	24	19.5	3.82
III. Classroom and Laboratory Management	19	124			7	5.6	31	25.0	61	49.2	25	20.2	3.84
	20	124			3	2.4	29	23.4	66	53.2	26	21.0	3.93
	21	123	1	.8	8	6.5	41	33.3	55	44.7	18	14.6	3.66
	22	123			8	6.5	43	35.0	51	41.5	21	17.1	3.69
	23	122			10	8.2	30	24.6	58	47.5	24	19.7	3.79
	24	121	1	.8	4	3.3	43	35.5	40	33.1	33	27.3	3.83
	25	122			1	.8	41	33.6	68	55.7	12	9.8	3.75
	26	121			2	1.7	42	34.7	58	47.9	19	15.7	3.78
	27	117	4	3.4	13	11.1	29	24.8	43	36.8	28	23.9	3.67
	28	123			1	.8	26	21.1	60	48.8	36	29.3	4.07

(continued)

TABLE LI

	ITEM	N	1		2		3		4		5		ITEM MEAN
			No.	%	No.	%	No.	%	No.	%	No.	%	
IV. Evaluation	29	123			5	4.1	41	33.3	60	48.8	17	13.8	3.72
	30	123	1	.8	4	3.3	41	33.3	68	55.3	9	7.3	3.65
	31	123	1	.8	10	8.1	40	32.5	55	44.7	17	13.8	3.63
	32	122			4	3.3	71	58.2	40	32.8	7	5.7	3.41
	33	122			6	4.9	62	50.8	41	33.6	13	10.7	3.50
	34	122			5	4.1	34	27.9	61	50.0	22	18.0	3.82
V. Professionalism and Public Relations	35	122			1	.8	13	10.7	51	41.8	57	46.7	4.34
	36	115			3	2.6	32	27.8	52	45.2	28	24.3	3.91
	37	122	1	.8	4	3.3	30	24.6	50	41.0	37	30.3	3.98
	38	122					30	24.6	61	50.0	31	25.4	4.01
	39	121	1	.8	8	6.6	39	32.2	47	38.8	26	21.5	3.74
	40	121			10	8.3	54	44.6	45	37.2	12	9.9	3.49
	41	118	2	1.7	10	8.5	56	47.5	36	30.5	14	11.9	3.42
	42	117	5	4.3	22	18.8	49	41.9	22	18.8	19	16.2	3.24

Summary Table Of Rating Sub-Scale Means for the Five Evaluations Of Institute Participants

TABLE LII

EVALUATOR	TOTAL SCALE MEAN	Scale I Mean "Teaching Methods and Techniques	Scale II Mean "Selection and Organization of Subject Matter	Scale III Mean "Classroom and Laboratory Management"	Scale IV Mean "Evaluation"	Scale V Mean "Professionalism and Public Relations
Teacher Educator I	3.63	3.52	3.55	3.80	3.42	3.84
Teacher Educator II	3.72	3.62	3.66	3.84	3.60	3.86
Teacher Educator III	3.80	3.76	3.81	3.94	3.63	3.79
Administrator	3.87	3.77	3.89	3.89	3.81	4.03
Participant	3.69	3.59	3.67	3.80	3.62	3.71

In-Service Rating Scale Form Summary

Table LII indicates the mean scores for each of the five sub-scale categories on the rating scale. Also shown are the total scale means for each of the five administrations of the instrument. Generally, the administrators rated the teachers the highest (3.87 total score mean) in each of the five sub-scale categories, while the participants rated themselves the lowest in each category (3.69 total score mean). Of the three successive teacher educator's evaluations, there is a clear indication that the rating scores in each sub-scale category increases.

Analysis of Participant Ratings

As part of the evaluation of the institute, an analysis was made of differences in the ratings of each of ten (10) different vocational teacher groups. While there were eighteen (18) groups represented in the sample, seven (7) of these had only one representative, and one (1) other (Medical Assistant) had two (2) representatives. Therefore, the analysis of self-ratings was done for eleven (11) groups, as follows:

Auto Body Repair
Auto Mechanics
Carpentry
Cosmetology
Dental Assisting
Drafting
Electricity
Machine Trades
Medical Assistant
Printing
Welding

while no such analysis could be made for these groups:

Appliance Repair
Commercial Art
Electronics
Food Services
Interior Decorating
Masonry
Small Engine Repair

Similarly, for the analysis of the ratings given by the Teacher Educators and Administrators, only ten (10) groups were used. These were the same groups as listed above, except that the Medical Assistant group was dropped from the analysis, making eight (8) groups not included in these two analyses.

A one-way analysis of variance technique was employed to determine whether significant difference was present in the ratings being given the various vocational teacher groups. The analysis was run separately for self-ratings, teacher educator ratings, and administrator ratings of teacher groups. Tables LIII, LV, and LVII present the results of these analysis. Significant F-ratios indicate that significant variation is present among all ten (or eleven) teacher groups, while the T-values indicate where significant differences exist between particular teacher groups when compared in pairs. In these tables then, the notation $\frac{\text{Group A}}{\text{Group B}}$ indicates that on the rating scale item shown, Group A obtained a significantly higher average rating than did Group B. As will be seen on some items, many significant differences exist, while on others, no group differed significantly from any other group.

Finally, Tables LIV, LVI, and LVIII summarize the findings by participant groups instead of by rating scale items, as in Tables LIII, LV, and LVII. Tables LIV, LVI, LVIII reflect the number of times each group's mean rating was found to be significantly higher than another group. This analysis is also presented separately for self-ratings, and rating by teacher educators and administrators.

While inspecting the data in Tables LIX, LX and LXI, it became apparent that some groups were frequently found to be rated significantly higher than other groups, while rarely being rated significantly lower than other groups. These groups will be referred to as "Usually rated high, rarely low".

Some groups were rated significantly higher and significantly lower than other groups about an equal number of times. These groups will be referred to as "Rated equally high and low".

Some groups were frequently found to be rated significantly lower than other groups, while rarely being rated significantly higher than other groups. These groups will be referred to as "Usually rated low, rarely high".

In discussing participant groups, notation will be made of the number of times which significantly high or low ratings were obtained, as follows: If a group were to be rated significantly higher than other groups ten times, while being rated significantly lower than other groups three times, the notation (10/3) would follow the name of that group.

Analysis of Variance F-Ratios and Significant T-Values for the Third of Three Teacher Educator Ratings of Participants in Selected Teaching Groups**

TABLE LIII

I. Teaching Methods and Techniques

ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
1	1.47	$\frac{\text{Cosmetology}}{\text{Drafting}}$
2	.62	No significantly different groups on this item.
3	1.18	No significantly different groups on this item.
4	3.19*	$\frac{\text{Auto Mechanics}}{\text{Auto Body Repair}}$; $\frac{\text{Cosmetology}}{\text{Auto Body Repair}}$; $\frac{\text{Auto Mechanics}}{\text{Electricity}}$; $\frac{\text{Cosmetology}}{\text{Electricity}}$; $\frac{\text{Cosmetology}}{\text{Machine Trades}}$
5	.75	No significantly different groups on this item.
6	2.33*	$\frac{\text{Cosmetology}}{\text{Drafting}}$; $\frac{\text{Cosmetology}}{\text{Printing}}$
7	1.64	$\frac{\text{Auto Mechanics}}{\text{Electricity}}$; $\frac{\text{Cosmetology}}{\text{Electricity}}$; $\frac{\text{Welding}}{\text{Electricity}}$
8	2.50*	$\frac{\text{Welding}}{\text{Printing}}$

* p .05
** Only those subject areas were included which had more than two participants.
*** p .001

(continued)

TABLE LIII

	ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
I. (Continued)	9	1.55	Cosmetology / Auto Body Repair ; Cosmetology / Electricity
	10	1.29	No significantly different groups on this item.
	11	1.42	No significantly different groups on this item.
	12	1.21	No significantly different groups on this item.
II. Selection and Organization of Subject Matter	13	1.68	Auto Mechanics / Machine Trades
	14	1.16	No significantly different groups on this item.
	15	.66	No significantly different groups on this item.
	16	2.17*	Auto Mechanics / Auto Body Repair ; Cosmetology / Auto Body Repair ; Welding / Auto Body Repair
	17	1.28	No significantly different groups on this item.
	18	1.09	No significantly different groups on this item.

* p .05
** Only those subject areas were included which had more than two participants.
*** p .001

(continued)

TABLE LIII

ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
19	1.16	Cosmetology Drafting
20	1.97*	Cosmetology ; Cosmetology Auto Mechanics Carpentry
21	1.22	No significantly different groups on this item.
22	.84	No significantly different groups on this item.
23	.89	No significantly different groups on this item.
24	.90	No significantly different groups on this item.
25	1.81	Cosmetology Printing
26	.56	No significantly different groups on this item.
27	1.70	No significantly different groups on this item.
28	.70	No significantly different groups on this item.

* p .05
** Only those subject areas were included which had more than two participants.
*** p .001

(continued)

TABLE LIII

	ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
IV. Evaluation	29	1.69	No significantly different groups on this item.
	30	1.45	Auto Mechanics Printing
	31	1.95*	Auto Mechanics ; Auto Mechanics ; Auto Mechanics Electricity Machine Trades Printing
	32	.97	No significantly different groups on this item.
	33	.61	No significantly different groups on this item.
	34	1.95*	Cosmetology Auto Body Repair
V. Professionalism and Public Relations	35	1.44	No significantly different groups on this item.
	36	.81	Dental Assist. Auto Mechanics
	37	.62	No significantly different groups on this item.
	38	1.73	No significantly different groups on this item.

* p .06
** Only those subject areas were included which had more than two participants.
*** p .001

(continued)

TABLE LIII

V. (Continued)

ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
39	1.61	$\frac{\text{Cosmetology}}{\text{Auto Body Repair}}$; $\frac{\text{Dental Assist.}}{\text{Auto Body Repair}}$
40	1.08	No significantly different groups on this item.
41	1.59	$\frac{\text{Dental Assist.}}{\text{Auto Body Repair}}$; $\frac{\text{Drafting}}{\text{Auto Body Repair}}$
42	1.53	No significantly different groups on this item.

* $p < .05$

** Only those subject areas were included which had more than two participants.

*** $p < .001$

Frequencies of Significantly Higher and Lower Mean Teacher-Educator Ratings

Of Selected Participant Groups by Rating Scale Subscales

TABLE LIV

TRADE AREAS (GROUPS)	SCALE I Teaching Methods and Techniques		SCALE II Selection and Organization of Subject Matter		SCALE III Classroom and Laboratory Management		SCALE IV Evaluation		SCALE V Professionalism and Public Relations		TOTALS	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Auto Body Repair	0	3	0	3	0	0	0	1	0	5	0	11
Auto Mechanics	3	0	2	0	0	1	4	0	0	1	9	2
Carpentry	0	0	1	0	0	3	0	0	0	0	1	3
Cosmetology	9	0	0	0	4	1	1	0	1	0	15	1
Dental Assist.	0	0	0	0	0	0	0	0	3	0	3	0
Drafting	0	2	0	0	0	0	0	0	1	0	1	2
Electricity	0	6	0	0	0	0	0	1	0	0	0	7
Machine Trades	0	1	0	1	0	0	0	1	0	0	0	3
Printing	0	2	0	0	0	1	0	2	0	0	0	5
Welding	2	0	1	0	0	0	0	0	0	0	3	0

I. Teaching Methods and Techniques

Analysis of Variance F-Ratios and Significant T-Values For Administrator Ratings of Participants in Selected Teaching Groups**

TABLE LV

ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
1	1.49	$\frac{\text{Auto Mechanics}}{\text{Electricity}}$; $\frac{\text{Cosmetology}}{\text{Electricity}}$
2	1.87	$\frac{\text{Cosmetology}}{\text{Electricity}}$
3	2.07*	$\frac{\text{Dental Assist.}}{\text{Auto Body Repair}}$; $\frac{\text{Cosmetology}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Printing}}$; $\frac{\text{Machine Trades}}{\text{Electricity}}$
4	1.32	No significantly different groups on this item.
5	2.67*	$\frac{\text{Cosmetology}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Drafting}}{\text{Electricity}}$; $\frac{\text{Machine Trades}}{\text{Electricity}}$; $\frac{\text{Printing}}{\text{Electricity}}$
6	2.11*	$\frac{\text{Cosmetology}}{\text{Electricity}}$; $\frac{\text{Drafting}}{\text{Electricity}}$; $\frac{\text{Machine Trades}}{\text{Electricity}}$; $\frac{\text{Printing}}{\text{Electricity}}$
7	.85	No significantly different groups on this item.

*p .05

** Only those subject areas were included which had more than two participants.

*** p .001

(continued)

TABLE LV

	ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
I. (Continued)	8	.81	No significantly different groups on this item.
	9	1.44	Cosmetology / Electricity
	10	1.28	No significantly different groups on this item.
	11	1.89	Cosmetology / Electricity
	12	2.72*	Auto Body Repair / Electricity ; Auto Mechanics / Electricity ; Carpentry / Electricity ; Cosmetology / Electricity ; Mach. Trades / Electricity ; Printing / Electricity
II. Selection and Organization of Subject Matter	13	1.55	No significantly different groups on this item.
	14	2.14*	Cosmetology / Electricity ; Machine Trades / Electricity
	15	1.87	Auto Body Repair / Electricity ; Auto Mechanics / Electricity ; Cosmetology / Electricity ; Machine Trades / Electricity
	16	1.42	No significantly different groups on this item.

* p .05

** Only those subject areas were included which had more than two participants.

*** p .001

(continued)

TABLE LV .

	ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
II. (Continued)	17	1.30	No significantly different groups on this item.
	18	3.75*	Auto Mechanics / Electricity ; Carpentry / Electricity ; Cosmetology / Electricity ; Drafting / Electricity ; Mach. Trades / Electricity ; Printing / Electricity
III. Classroom and Laboratory Management	19	1.40	No significantly different groups on this item.
	20	3.08*	Cosmetology / Electricity ; Dental Assist. / Electricity ; Drafting / Electricity ; Machine Trades / Electricity
	21	2.31*	Cosmetology / Electricity ; Dental Assist. / Electricity ; Machine Trades / Electricity ; Welding / Electricity
	22	1.55	Auto Body Repair / Electricity ; Carpentry / Electricity ; Cosmetology / Electricity ; Machine Trades / Electricity
	23	1.51	Auto Body Repair / Electricity ; Carpentry / Electricity ; Drafting / Electricity ; Cosmetology / Electricity
	24	.92	No significantly different groups on this item.
	25	1.39	Auto Mechanics / Electricity ; Cosmetology / Electricity ; Machine Trades / Electricity ; Welding / Electricity

* p .05
** Only those subject areas were included which had more than two participants.
*** p .001

(continued)

TABLE LV .

	ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
III. (Continued)	26	1.97*	Dental Assist. ; Machine Trades Cosmetology Electricity
	27	2.14*	Cosmetology ; Machine Trades Electricity Electricity
	28	2.39*	Cosmetology ; Machine Trades Electricity Electricity
IV. Evaluation	29	1.28	Dental Assist. ; Dental Assist. Cosmetology Electricity
	30	1.34	Machine Trades Electricity
	31	.88	No significantly different groups on this item.
	32	1.34	No significantly different groups on this item.
	33	.99	Dental Assist. Electricity
	34	1.51	No significantly different groups on this item.

* p .05
** Only those subject areas were included which had more than two participants.
*** p .001

(continued)

V. Professionalism and Public Relations

TABLE LV

ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
35	1.04	No significantly different groups on this item.
36	1.34	$\frac{\text{Machine Trades}}{\text{Electricity}}$
37	2.33*	$\frac{\text{Auto Mechanics}}{\text{Electricity}}$; $\frac{\text{Cosmetology}}{\text{Electricity}}$; $\frac{\text{Drafting}}{\text{Electricity}}$; $\frac{\text{Machine Trades}}{\text{Electricity}}$
38	1.43	$\frac{\text{Machine Trades}}{\text{Electricity}}$
39	1.56	$\frac{\text{Auto Mechanics}}{\text{Electricity}}$; $\frac{\text{Machine Trades}}{\text{Electricity}}$
40	1.90	$\frac{\text{Auto Mechanics}}{\text{Electricity}}$; $\frac{\text{Machine Trades}}{\text{Electricity}}$
41	.73	No significantly different groups on this item.
42	1.55	$\frac{\text{Dental Assist.}}{\text{Electricity}}$

* $p < .05$

** Only those subject areas were included which had more than two participants.

*** $p < .001$

Frequencies of Significantly Higher and Lower Mean Administrator Ratings Of Selected Participant Groups by Rating Scale Subscales

TABLE LVI

TRADE AREAS (GROUPS)	SCALE I Teaching Methods and Techniques		SCALE II Selection and Organization of Subject Matter		SCALE III Classroom and Laboratory Management		SCALE IV Evaluation		SCALE V Professionalism and Public Relations		TOTALS	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Auto Body Repair	1	1	1	0	2	0	0	0	0	0	4	1
Auto-Mechanics	2	0	2	0	1	0	0	0	3	0	8	0
Carpentry	1	0	1	0	2	0	0	0	0	0	4	0
Cosmetology	8	0	3	0	7	1	0	1	1	0	19	2
Dental Assist.	4	0	0	0	3	0	3	0	1	0	11	0
Drafting	2	0	1	0	2	0	0	0	1	0	6	0
Electricity	0	23	0	12	0	25	0	3	0	11	0	74
Machine Trades	4	0	3	0	7	0	1	0	5	0	20	0
Printing	3	0	1	0	0	0	0	0	0	0	4	0
Welding	0	1	0	0	2	0	0	0	0	0	2	1

I. Teaching Methods and Techniques

Analysis of Variance F-Ratios and Significant T-Values For Self-Ratings by Participants in Selected Teaching Groups**

TABLE LVII

ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
1	2.10*	Cosmetology / Electricity ; Dental Assist. / Electricity ; Machine Trades / Electricity ; Medical Assist. / Electricity ; Printing / Electricity
2	1.65	Dental Assist. / Cosmetology ; Dental Assist. / Welding
3	1.39	No significantly different groups on this item.
4	1.73	Dental Assist. / Auto Body Repair ; Dental Assist. / Electricity ; Dental Assist. / Printing ; Dental Assist. / Welding ; Drafting / Printing
5	.97	No significantly different groups on this item.
6	1.57	Dental Assist. / Auto Mechanics ; Dental Assist. / Cosmetology ; Dental Assist. / Machine Trades ; Dental Assist. / Welding
7	1.27	No significantly different groups on this item.
8	.89	No significantly different groups on this item.
9	1.09	No significantly different groups on this item.

* p .05

** Only those subject areas were included which had more than one participant.

*** p .001

(continued)

TABLE LVII

	ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
I. (Continued)	10	1.72	$\frac{\text{Auto Mechanics}}{\text{Cosmetology}}$
	11	1.90	$\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Printing}}$; $\frac{\text{Dental Assist.}}{\text{Welding}}$
	12	1.85	$\frac{\text{Auto Body Repair}}{\text{Welding}}$; $\frac{\text{Auto Mechanics}}{\text{Welding}}$
II. Selection and Organization of Subject Matter	13	1.52	$\frac{\text{Dental Assist.}}{\text{Auto Mechanics}}$; $\frac{\text{Dental Assist.}}{\text{Cosmetology}}$; $\frac{\text{Dental Assist.}}{\text{Welding}}$
	14	.79	No significantly different groups on this item.
	15	2.00*	$\frac{\text{Cosmetology}}{\text{Auto Mechanics}}$; $\frac{\text{Cosmetology}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Medical Assist.}}{\text{Electricity}}$
	16	1.23	No significantly different groups on this item.
	17	1.52	$\frac{\text{Dental Assist.}}{\text{Auto Mechanics}}$; $\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Welding}}$
	18	3.47*	$\frac{\text{Dental Assist.}}{\text{Auto Mechanics}}$; $\frac{\text{Drafting}}{\text{Auto Mechanics}}$; $\frac{\text{Machine Trades}}{\text{Auto Mechanics}}$; $\frac{\text{Dental Assist.}}{\text{Cosmetology}}$; $\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Welding}}$; $\frac{\text{Drafting}}{\text{Electricity}}$; $\frac{\text{Machine Trades}}{\text{Electricity}}$; $\frac{\text{Medical Assist.}}{\text{Electricity}}$

* p .05 ** Only those subject areas were included which had more than one participant. *** p .001

(continued)

TABLE LVII

ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
19	2.09*	$\frac{\text{Auto Body Repair}}{\text{Welding}}$; $\frac{\text{Cosmetology}}{\text{Welding}}$; $\frac{\text{Dental Assist.}}{\text{Welding}}$
20	2.92*	$\frac{\text{Auto Body Repair}}{\text{Carpentry}}$; $\frac{\text{Cosmetology}}{\text{Carpentry}}$; $\frac{\text{Dental Assist.}}{\text{Carpentry}}$; $\frac{\text{Machine Trades}}{\text{Carpentry}}$; $\frac{\text{Cosmetology}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Welding}}$
21	3.00*	$\frac{\text{Cosmetology}}{\text{Printing}}$; $\frac{\text{Dental Assist.}}{\text{Printing}}$
22	1.97*	$\frac{\text{Auto Body Repair}}{\text{Welding}}$; $\frac{\text{Dental Assist.}}{\text{Carpentry}}$; $\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Welding}}$
23	2.63*	$\frac{\text{Auto Body Repair}}{\text{Carpentry}}$; $\frac{\text{Auto Body Repair}}{\text{Electricity}}$; $\frac{\text{Auto Body Repair}}{\text{Welding}}$; $\frac{\text{Dental Assist.}}{\text{Carpentry}}$; $\frac{\text{Drafting}}{\text{Carpentry}}$; $\frac{\text{Dental Assist.}}{\text{Electricity}}$; $\frac{\text{Dental Assist.}}{\text{Welding}}$; $\frac{\text{Drafting}}{\text{Electricity}}$
24	2.30*	$\frac{\text{Auto Body Repair}}{\text{Electricity}}$; $\frac{\text{Auto Body Repair}}{\text{Welding}}$
25	1.66	$\frac{\text{Auto Body Repair}}{\text{Electricity}}$

* p .05

**Only those subject areas were included which had more than one participant.

*** p .001

(continued)

TABLE LVII

	ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
III. (Continued)	26	2.87*	Dental Assist. / Carpentry ; Dental Assist. / Cosmetology ; Dental Assist. / Drafting ; Dental Assist. / Electricity ; Dental Assist. / Welding
	27	2.30*	Cosmetology / Auto Mechanics ; Cosmetology / Drafting ; Dental Assist. / Drafting
	28	2.72*	Dental Assist. / Electricity ; Dental Assist. / Machine Trades ; Dental Assist. / Welding ; Printing / Electricity
IV. Evaluation	29	.70	Dental Assist. / Welding
	30	1.37	No significantly different groups on this item.
	31	1.90	Dental Assist. / Cosmetology ; Dental Assist. / Electricity
	32	1.53	Dental Assist. / Cosmetology ; Dental Assist. / Electricity ; Dental Assist. / Printing
	33	2.03*	Dental Assist. / Auto Mechanics ; Dental Assist. / Carpentry ; Dental Assist. / Cosmetology ; Dental Assist. / Electricity ; Dental Assist. / Machine Trades ; Dental Assist. / Welding ; Dental Assist. / Printing
	34	1.94*	Dental Assist. / Carpentry ; Dental Assist. / Electricity ; Dental Assist. / Printing ; Dental Assist. / Welding

* p .05

** Only those subject areas were included which had more than one participant.

*** p .001

(continued)

TABLE LVII

ITEM	F-RATIO	Vocational Teacher Groups Receiving Significantly Different Ratings***
35	1.92*	Auto Body Repair / Electricity ; Carpentry / Electricity ; Dental Assist. / Electricity ; Drafting / Electricity ; Medical Assist. / Electricity ; Printing / Electricity
36	1.70	Dental Assist. / Auto Body Repair ; Dental Assist. / Carpentry ; Dental Assist. / Drafting ; Dental Assist. / Electricity ; Dental Assist. / Machine Trades ; Dental Assistant / Welding ; Drafting / Electricity
37	2.31*	Dental Assist. / Drafting ; Dental Assist. / Electricity ; Dental Assist. / Printing ; Dental Assist. / Welding ; Medical Assist. / Electricity
38	1.46	Dental Assist. / Electricity ; Dental Assist. / Welding
39	1.00	No significantly different groups on this item.
40	1.94*	Dental Assist. / Welding
41	2.13*	Dental Assist. / Auto Body Repair ; Dental Assist. / Auto Mechanics ; Dental Assist. / Carpentry ; Dental Assist. / Cosmetology ; Dental Assist. / Electricity ; Dental Assist. / Machine Trades ; Dental Assist. / Welding
42	1.88	Dental Assist. / Machine Trades ; Dental Assist. / Welding

* $p < .05$

** Only those subject areas were included which had more than one participant.

*** $p < .001$

Frequencies of Significantly Higher and Lower Mean Self Ratings Of Selected Participant Groups by Rating Scale Subscales

TABLE LVIII

TRADE AREAS (GROUPS)	SCALE I Teaching Methods and Techniques		SCALE II Selection and Organization of Subject Matter		SCALE III Classroom and Laboratory Management		SCALE IV Evaluation		SCALE V Professionalism and Public Relations		TOTALS	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Auto Body Repair	1	1	0	1	9	0	0	0	1	2	11	4
Auto Mechanics	2	1	0	5	0	1	0	1	0	1	2	9
Carpentry	0	0	0	0	0	9	0	2	1	2	1	13
Cosmetology	1	3	0	2	6	1	0	3	2	1	9	10
Dental Assist.	14	0	12	0	20	0	17	0	23	0	86	0
Drafting	1	0	3	0	0	3	0	0	0	2	4	5
Electricity	0	7	0	8	2	10	0	4	0	12	2	41
Machine Trades	1	1	2	0	1	1	0	1	0	3	4	6
Medical Assist.	1	0	2	0	0	0	0	0	2	0	5	0
Printing	1	3	0	0	1	2	0	3	1	1	3	9
Welding	0	5	0	3	0	12	0	3	0	6	0	29

Teacher Educator's Ratings

Usually Rated High, Rarely Rated Low

TABLE LIX

Of the ten (10) vocational groups who were compared, four (4) of them fall under this category. The four groups are:

Cosmetology (15/1)

Auto Mechanics (9/2)

Welding (3/0)

Dental Assistant (3/0)

Rated High and Low About an Equal Number of Times

Two groups - Carpentry (1/3) and Drafting (1/2) - received approximately an equal number of high and low ratings when compared with the other groups.

Usually Rated Low, Rarely Rated High

Four of the groups fall under this category. They are:

Auto Body (0/11)

Electricity (0/7)

Printing (0/5)

Machine Trades (0/3)

Each of these obtained numerous low ratings, when compared with another group.

Administrator's Ratings

Usually Rated High, Rarely Rated Low

TABLE LX

Of the ten (10) vocational teacher groups who were compared, eight (8) of them fall under this category. Six (6) of these obtained numerous high ratings when compared with another group, while never receiving significantly lower ratings. The six were:

Machine Trades (20/0)
Dental Assistant (11/0)
Auto Mechanic (8/0)
Drafting (6/0)
Carpentry (4/0)
Printing (4/0)

In addition, two (2) groups - cosmetology (19/2) and auto body repair (4/1) - were found to be rated significantly higher far more often than they were rated significantly lower when compared with another group.

Rated High and Low About an Equal Number of Times

The welding group was the only teaching group of the ten (10) compared that falls under this category (2/1). They were rated significantly higher on two ratings when compared with another group, while receiving one significantly lower rating.

TABLE LX (Cont'd.)

Usually Rated Low, Rarely Rated High

The electricity group falls under this category. They obtained seventy-four (74) significantly lower ratings when compared with other groups. The group received no significantly higher ratings. It is because of the large number of significantly low ratings given this group on most items of the rating scale that so many of the other groups significantly have high ratings in comparison.

Self Ratings

Usually Rated High, Rarely Rated Low

TABLE LXI

Of the eleven (11) groups who were compared, three (3) of them fall under this category. Each of the three (3) groups received significantly higher ratings, when compared with other groups, while rarely receiving a lower rating. The three groups were:

Dental Assistant (86/0)
Auto Body Repair (11/4)
Medical Assistant (5/0)

The dental assistant group rated themselves high in each of the five scale categories. A possible explanation of why the dental group rated themselves significantly higher when compared with other groups is the experience and training required at this para-professional level.

Rated High and Low About an Equal Number of Times

Three groups, which received about an equal amount of high and low ratings were:

TABLE LXI (Cont'd.)

Cosmetology (9/10)

Machine Trades (4/6)

Drafting (4/5)

Usually Rated Low, Rarely Rated High

Five (5) of the eleven (11) teacher groups, who were compared fall under this category. One (1) of these - welding (0/29) - obtained all significantly lower ratings when compared to another group. The five are:

Printing (3/9)

Electricity (2/41)

Auto Mechanics (2/9)

Carpentry (1/13)

Welding (0/29)

Twelve (12) of the twenty-nine (29) low ratings for the welding group were recorded in Scale 3 (Classroom and Laboratory Management). Likewise, nine (9) of the thirteen (13) significantly lower ratings for the carpentry group were obtained in Scale 3. The electricity group obtained lower ratings as compared with other groups in all five scale categories.

Brief Comparison of the Three Tables

The dental assistant teaching group were consistent in receiving significantly high ratings when compared with the other groups on each of the three (3) evaluations made, i.e., the "teacher educator", "administrator", and "self" ratings were consistent in giving this group significantly high ratings when compared with the other groups while giving no low ratings.

The electricity teaching group received significantly low ratings when compared to other teaching groups. Low ratings were obtained from all three evaluations - teacher educator, administrator and self. It is hypothesized that this group received low ratings because of the uncertainty and confusion on the part of the instructor as to what the occupational objectives of the electricity curriculum should be. The facilities, equipment and materials found in the school laboratory may not have fit the occupational objective originally envisioned by the instructor. In addition, the instructor may have been occupationally competent in a specialized field of the electrical occupation and this speciality could have been only a small portion of the intended curriculum.

The cosmetology teaching group had significantly high ratings when compared with the other groups on both the teacher educator's and administrator's evaluations, but obtained a majority of low ratings when compared with other groups on the self evaluation. A possible explanation why the cosmetologists rated themselves low on the self administration is the stringent standards and expectations set forth by the State Board of Cosmetology, which is the legal licensing authority that tended to convince some teachers that they were not fulfilling their teaching obligations at the anticipated level. For this reason, it is theorized that they tended to rate themselves lower than the other two evaluators who may not be familiar with the licensing requirements.

EVALUATION SECTION E

Measurement of Institute Objectives

Measurement of Institute Objectives

Institute objectives were analyzed both by the evaluation of ratings given to participants and by the performance of participants on the achievement test. It was possible, therefore, to intercorrelate those rating scale items relating to a given objective with achievement test items relating to that same objective. Such a procedure has the effect of comparing the relationship between observed classroom skill in an area of competance with measured knowledge about that area (via a written examination).

Tables LXII - LXIX present intercorrelations between rating scale and achievement test items for the eight institute objectives. Notation has been made of those correlations which reach statistical significance at the .05 level. Following each table is a presentation of those actual items which were significantly correlated with one another; a brief discussion of the implications of these correlations will follow the item presentations.

Item Intercorrelations for Rating Scale and Achievement Test Items Relating To Institute Objective II*

TABLE LXII

Achievement Test Item No.	Rating Scale Item No.							
	35	36	37	38	39	40	41	42
1	-.13	-.10	-.11	-.09	.-10	-.11	-.11	-.09
2	.06	.10	.10	.09	.10	.07	.04	.07
13	.46*	.45*	.44*	.46*	.45*	.46*	.26*	.26*
19	-.10	-.09	-.10	-.08	-.08	.06	-.07	-.08
31	-.83*	-.84*	-.82*	-.83*	-.84*	-.83*	-.55*	-.55*
32	.01	.01	.00	.02	.03	.01	.10	-.11
44	.04	.07	.06	.06	.06	.05	.01	.03
45	.07	.03	.06	.07	.09	.09	.09	.09
56	-.11	-.13	-.14	-.14	-.10	-.13	-.06	-.05

* $p < .05$

Presentation of Actual Items Which Correlate With Objective II

Significantly correlated rating and achievement items (Table LXII) relating to Institute Objective II - "To develop an understanding of the organization and philosophy of Vocational Education, specifically in the area of Trade and Industrial Education".

Ach. Test Item	Rating Scale Item	Correlation
Charles A. Prosser's Theorums on Vocational Education are not applicable to the modern philosophies of Vocational Education	Cooperates with supervisors and administrative personnel	.46
	Works as a member of a professional team in planning a suitable educational program for the vocational student	.45
	Builds community support for the progress of trade and industrial education	.44
	Understands the principles of human relations applied to student, faculty and the community	.46
	Has shown a willingness to function as a member of a committee	.45
	Provides leadership in group activity	.46
	Works with advisory and committee groups	.26
	Is active in professional education organizations	.26
	Cooperates with supervisor and administrative personnel	-.83

Presentation of Actual Items Which Correlate

With Objective II (Cont'd.)

Ach. Test Item	Rating Scale Item	Correlation
In the Ohio State organizational system, T & I is called a A. Unit B. Department C. Division D. Service	Works as a member of a professional team in planning a suitable educational program for Vocational Education	-.84
	Builds community support for the progress of Trade and Industrial Education	-.82
	Understands the principle of human relations applied to student, faculty, and the community	-.83
	Has shown a willingness to function as a member of a committee	-.84
	Provides leadership in group activity	-.83
	Works with advisory and committee groups	-.55
	Is active in professional educational organizations	-.55

Item Intercorrelations for Rating Scale and Achievement Test Items Relating To Institute Objective III*

TABLE LXIII

Achievement Test Item No.	Rating Scale Item No.	
	11	13
14	-.03	-.04
34	.09	-.04
46	.00	.00
47	-.06	.10
73	.11	.20*
74	.15	.08
75	.10	-.09
76	-.06	.05
77	.01	.00
78	.02	.05
79	.03	.04
80	-.07	-.00
81	-.09	-.13

* $p < .05$

Presentation of Actual Items Which Correlate With Objective III

Significantly correlated rating and achievement items (Table LXIII) relating to institute Objective III - "To develop an understanding of the adolescent's physical and mental development and to become adequately equipped to deal with behaviorial problems of the student".

Ach. Test Item	Rating Scale Item	Correlation
We learn through the senses; sight, hearing, touch, smell, and taste. We learn easier if we received the impression through a combination of several senses (Subject is to clarify this statement in Allen's system of teaching steps).	Possesses an understanding of the learning process.	.20

Item Intercorrelations for Rating Scale and Achievement Test Items Relating To Institute Objective IV*

TABLE LXIV

Achievement Test Item No.	Rating Scale Item No.
	10
3	-.06
4	-.06
21	.05
35	.20*

* $p < .05$

Presentation of Actual Items Which Correlate With Objective IV

Significantly correlated rating and achievement items (Table LXIV) relating to Institute Objective IV - "To develop the competence of the teacher in the development and use of instructional aids and laboratory teaching".

Ach. Test Item	Rating Scale Item	Correlation
Which of the following is a disadvantage for the overhead projector? A. Teacher faces toward the class B. Room lights may be on or off C. Complexity of the lesson D. Time, effort, and expense necessary to prepare transparencies	Uses audiovisual aids in presenting course content	.20

Item Intercorrelations for Rating Scale and Achievement Test Items Relating To Institute Objective V*

TABLE LXV

Achievement Test Item No.	Rating Scale Item No.							
	1	2	3	4	5	6	9	12
6	-.18	-.09	-.06	.06	.05	-.01	-.08	-.09
16	.22*	.08	.10	.13	.19	.22*	.17	-.01
22	.03	.08	.04	.19	.14	.10	.01	.09
25	-.04	-.02	.04	.05	-.11	-.13	-.09	-.05
36	-.08	-.14	-.03	.04	.03	.08	.00	-.08
37	-.12	-.09	-.15	-.11	-.23*	-.09	-.12	-.17
48	-.08	.01	-.04	-.07	-.12	-.01	-.00	-.02
50	.04	.02	-.02	.08	.09	.22*	.03	.02

* $p<.05$

Presentation of Actual Items Which Correlate With Objective V

Significantly correlated rating and achievement items (Table LXV) relating to Institute Objective V - "To develop the competence of the teacher in using various teaching techniques (methods) in conducting related and laboratory classes".

Ach. Test Item	Rating Scale Item	Correlation
Overhead questions require an individual response	The teacher: Organizes and conducts effective demonstrations	.22
	Makes provisions for individual difference in the instructional plan	.22
The teaching method which draws information from the class is the A. Lecture B. Demonstration C. Conference D. Developmental	The teacher: Has the ability to select and use a wide range of techniques, materials and methods in teaching	-.23
Which of the following is considered a method of teaching skills? A. Job Sheet B. Presentation C. Demonstration D. None of the above	The teacher: Makes provisions for individual difference in the instructional plan	.22

Item Intercorrelations for Rating Scale and Achievement Test Items Relating To Institute Objective VI*

TABLE LXVI

Achievement Test Item No.	Rating Scale Item No.					
	29	30	31	32	33	34
7	-.08	-.14	-.17	-.03	-.03	.14
8	.14	.24*	.08	.11	.11	.03
29	.01	.09	.00	-.02	.10	.15
30	.11	.13	-.04	-.08	.05	-.04
38	-.02	.01	-.09	.00	.03	-.02
51	-.06	-.14	-.13	-.04	.06	.21*
57	-.00	.04	.14	.05	.06	.12
58	.21*	.11	.11	.15	.07	.06

* $p < .05$

Presentation of Actual Items Which Correlate

With Objective VI

Significantly correlated rating and achievement items (Table LXVI) relating to Institute Objective VI - "To develop the competence of the teacher processes in conducting related and laboratory classes".

Ach. Test Item	Rating Scale Item	Correlation
The main purpose of aptitude tests is to determine achievement in a specific subject area	The teacher: Has established a procedure for evaluating and recording student achievement	.24
In objective testing, the word "objective" refers to the method of A. Scoring the answers B. Identifying the learning outcomes C. Selecting the test content D. Presenting the problem	The teacher: Uses performance tests as one measure of student achievement in the laboratory	.21
Which of the following factors should not be considered when establishing a grade system? A. Pupil performance in the laboratory of shop B. Pupil activities after school hours C. Pupil attendance record in class D. Pupil achievement in related class	The teacher: Constructs test items of all basic types	.21

Item Intercorrelations for Rating Scale and Achievement Test Items Relating To Institute Objective VII

TABLE LXVII

Achievement Test Item No.	Rating Scale Item No.			Achievement Test Item No.	Rating Scale Item No.		
	7	8	16		7	8	16
9	-.02	-.06	.10	86	-.10	.02	.01
12	-.01	.16	.14	87	-.02	.04	.01
15	-.01	-.05	-.07	88	-.12	-.05	-.00
18	-.10	-.06	.01	89	-.11	.04	.02
27	.00	-.14	-.07	90	-.08	-.12	.06
28	-.09	.09	-.01	91	.02	.13	.16
33	.00	.15	.16	92	-.11	-.06	-.03
39	.04	.06	.04	93	.08	.29*	.18
49	.09	.10	.14	94	-.10	-.21*	-.07
70	.01	.20*	.00	95	.06	-.01	-.02
71	-.02	.16	.07	96	.08	-.08	.03
72	-.10	.20*	.08	97	-.01	.23	.09
82	-.14	.10	.13	98	-.14	-.05	-.04
83	.04	.11	.13	99	-.02	.16	.05
84	-.01	.28*	.15	100	-.05	-.04	.02
85	-.03	.21*	.03				

* $p < .05$

Presentation of Actual Items Which Correlate With Objective VII

Significantly correlated rating and achievement items (Table LXVII) relating to Institute Objective VII - "To enable the teacher to prepare lesson plans, personnel systems, instruction sheets, and other materials under close supervision in preparation for the first six weeks of school".

Ach. Test Item	Rating Scale Item	Correlation
Used to arouse interest A. Preparation step B. Presentation step C. Application step D. Evaluation step	Prepares and uses information sheets in his teaching	.20
Method of presenting material not in textbook A. Job Sheet B. Operation Sheet C. Assignment Sheet D. Information Sheet	Prepares and uses information sheet in his teaching	.20
Choose the correct letter preceding the teaching step and darken in the corresponding letter in the blank space on the answer sheet. (Subject is to classify this statement in Allen's system of teaching steps)	Prepares and uses information sheets in his teaching	.28
Assignment Sheet	Prepares and uses information sheets in his teaching	.21
Show Finished Product	Prepares and uses information sheets in his teaching	.29
Check Job	Prepares and uses information sheets in his teaching	.21

Item Intercorrelations for Rating Scale and Achievement Test Items Relating To Institute Objective VIII*

TABLE LXVIII

Achievement Test Item No.	Rating Scale Item No. 14	15	17	18
10	-.04	-.05	-.00	-.09
20	-.02	-.13	.03	-.02
24	-.12	-.10	.02	.03
40	.14	-.01	.03	.11
41	-.00	-.00	-.02	.11
42	-.22*	-.05	.06	.07
52	-.03	.01	.11	.00
53	.16	-.02	-.06	.02
54	-.19	-.14	.05	-.08
55	-.01	.00	.16	.21*
59	-.15	-.16	-.01	-.11
60	.09	-.03	.06	-.01
61	.07	-.15	-.22*	-.22*
62	.02	-.01	.11	-.05
63	-.14	-.13	.08	.00
64	.06	-.01	-.01	-.11
65	-.05	-.03	.02	.01
66	.13	.03	.05	-.01
67	.22*	.02	.04	-.05
68	-.01	-.12	.15	.09

* $p < .05$

Presentation of Actual Items Which Correlate With Objective VIII

Significantly correlated rating and achievement items (Table LXVIII) relating to Institute Objective VIII - "To develop an understanding of how course content is selected and developed in Vocational Education and to give the teacher the opportunity to develop same under close supervision".

Ach. Test Item	Rating Scale Item	Correlation
Inspection and testing activities should be included as part of the A. Job B. Operation C. Auxiliary Knowledge D. Step	The teacher: Selects and uses instructional materials and references suited to the students' level and interest	-.22
A detailed plan of instruction for a course is description of a A. Program of studies B. Curriculum C. Course of Study D. Course Outline	The teacher: Selects appropriate jobs and other learning activities as a vehicle of instruction	.21
Essentially, a list of operations A. Jobs B. Key Points C. Steps D. None of the above	The teacher: Analyses his trade for teachable content	-.22
	The teacher: Selects appropriate jobs and other learning activities as a vehicle of instruction	-.22
Good to know, but not absolutely necessary A. Technical Related B. General Related C. Auxiliary Information D. Operation Sheets	The teacher: Selects and uses instructional materials and references suited to the students' level and interest	.22

Item Intercorrelations for Rating Scale and Achievement Test Items Relating To Institute Objective IX*

TABLE LXIX

Achievement Test Item No.	Rating Scale Item No.									
	19	20	21	22	23	24	25	26	27	28
5	.07	-.06	-.06	-.01	.03	-.21*	.10	.00	.08	.06
11	.04	-.02	.11	.03	.05	.06	.09	-.04	.02	.11
17	.02	-.11	-.08	-.10	-.09	.10	-.07	-.05	-.08	-.17
23	.06	.03	.22*	.13	.08	-.02	-.01	-.03	.01	-.04
26	-.02	.01	.18	.05	.09	-.10	-.01	-.04	-.07	.02
43	-.18	-.29*	-.16	-.24*	-.20*	-.19	-.09	-.18	-.07	-.24*
69	-.06	-.18	-.11	-.15	-.13	-.19	-.05	-.05	-.07	-.11

* $p < .05$

Presentation of Actual Items Which Correlate With Objective IX

Significantly correlated rating and achievement items (Table LXIX) relating to Institute Objective IX - "To develop the competence of the teacher to effectively manage and organize the related classroom and laboratory".

Ach. Test Item	Rating Scale Item	Correlation
The lecture method can be effective when introducing a new area of study	The teacher: Selects and orders special materials, supplies and equipment	-.21
The safety part of a lesson should be written as a separate outline	The teacher: Maintains progress charts and records of individual student achievement	.22
The description of routine shop duties is the A. Progress Chart B. Frequency Chart C. Job Sheet D. Student Personnel Sheet	The teacher: Utilizes good housekeeping practices in his teaching	-.29
	Has organized procedures for the maintenance of tools and materials	-.24
	Maintains a procedure for storage and control of tools, supplies and materials	-.20
	Instructs students in the care and conservation of equipment and materials	-.24

Summary Of The Intercorrelations Between The Achievement Test and The Rating Scale Items

The intercorrelations shown in Tables LXII - LXIX show the comparisons which exist between the performance on the achievement test and the evaluation of ratings given to the participant by the teacher educator's third evaluation.

The achievement test, which was designed to measure the extent to which the pre-service institute objectives were met, was administered at the conclusion of the institute. It consisted of one-hundred items; the items were related to the pre-service objectives.

The in-service rating scale instrument which was administered at five different intervals throughout the school year 1969-70, consisted of forty-two (42) competencies. The in-service instrument was developed around program elements, which seemed logical from an evaluator's viewpoint. The five program elements are:

1. Teaching methods and techniques
2. Selection and organization of subject matter
3. Classroom and laboratory management
4. Evaluation techniques and practices
5. Professionalism and public relations

Because the two instruments were developed around two different criteria (objectives and program elements), the numbers of significant intercorrelations were limited between the two instruments.

To alleviate this problem in the future, it is recommended that both the pre-service evaluation instrument and the in-service rating form be developed around the project objectives, in order that correlation of test items and rating scale items can reasonably be determined.

Of the one-hundred test items, only a total of twenty-two correlated significantly at the .05 level. Forty (40) rating scale items correlated significantly at the .05 level with the written pre-service examination. (It must be noted that it is possible for the rating scale items to appear more than one time). There were twenty-four (24) positive and sixteen (16) negative correlations.

Following are the eight (8) pre-service institute objectives and a brief description of the intercorrelations which relate to each objective.

The intercorrelations relate to Objectives II-IX, because only these eight objectives were directly related to the pre-service institute.

Objective II

(To develop an understanding of the organization and philosophy of Vocational Education, specifically in the area of Trade and Industrial Education)

There were a total of nine (9) achievement test items and eight (8) rating scale items which relate to Objective II. Two of the nine test items were significant at the .05 level in the intercorrelation with fifteen (15) rating scale items. (Although there were eight (8) scale items which relate to the test items, it is possible to have rating scale item correlations occurring several times under each objective). There were eight (8) positive and seven (7) negative correlations of rating scale items with achievement test items in Objective II.

It is speculated that the negative correlation occurred because the test item was misunderstood by the participants and thus, they marked the wrong answer, while at the same time, being rated satisfactorily on the rating scale evaluation.

Objective III

(To develop an understanding of the adolescent's physical and mental development and to become adequately equipped to deal with behavioral problems of the student)

There were a total of thirteen (13) achievement test and two (2) rating scale items which relate to Objective III. Only one test and one rating scale item was significant at the .05 level. Although there appears to be an adequate number of test items relating to Objective III, the small number of significant correlations (one (1) positive) indicates that the rating scale items and achievement test be re-evaluated to determine if they are reliable and valid test items.

Objective IV

(To develop the competence of the teacher in the development and use of instructional aids and media in conducting related and laboratory teaching)

There were a total of four (4) achievement and one(1) rating scale item which relate to Objective IV. One of the test items was significant at the .05 level in the intercorrelation with one rating scale item. It is apparent that this objective has a limited number of items (achievement and rating) which relate to it. Because of the limited number of items, it is difficult to determine the degree to which this objective has been met. Future evaluative instruments will contain more test and rating scale items relating to this objective.

Objective V

(To develop the competence of the teacher in using various teaching techniques (methods) in conducting related and laboratory classes)

There were a total of eight (8) achievement and eight (8) rating scale items which relate to Objective V. Of the eight (8) test items, three (3) were found to be significant at the .05 level. There were three (3) positive and one (1) negative significant correlation between the test and rating scale items. Although there appears to be a limited number of achievement test and rating scale items relating to Objective V, the quality of test item, and the intercorrelations between items appears to be satisfactory. Future evaluative instruments will contain additional test items which relate to this objective.

Objective VI

(To develop the competence of the teacher to evaluate students and teaching processes in conducting related and laboratory classes)

There were a total of eight (8) achievement and six (6) rating scale items which relate to Objective VI. Three (3) of the eight (8) test items were significant at the .05 level when compared with the rating scale items. There were three (3) positive and no (0) negative correlations. Although there are a limited number of test and rating scale items which relate to this objective, there is a high percentage of intercorrelation at the .05 level.

This indicates that both evaluative instruments are evaluating similar competencies under different situations, i.e., the achievement test measures the extent to which the pre-service objectives have been met, while the rating scale items measure the achievement during the in-service phase.

Objective VII

(To enable the teacher to prepare lesson plans, personnel systems, instruction sheets, and other materials under close supervision in preparation for the first six weeks of school)

There were a total of thirty-one (31) test and three (3) rating scale items, which relate to Objective VII. Of the thirty-one (31) test items, only five (5) were significant at the .05 level in the intercorrelation with the rating scale items. Although this objective is extremely important in the preparation of the vocational teacher, too much emphasis has been given to this objective in terms of achievement test items, while at the same time, assigning only a limited number of rating scale items which would measure the in-service competencies of the instructor. A selective process using the easiness and discrimination index, utilizing data gathered from the present instrument, will be employed. In addition to the selective process to select test items, a concerted effort will be made to identify additional rating scale items to more adequately determine the extent to which the objective is being met during the in-service phase.

Objective VIII

(To develop an understanding of how course content is selected and developed in Vocational Education and to give the teacher the opportunity to develop same under close supervision)

There were a total of twenty (20) achievement test and four (4) rating scale items which relate to Objective VIII. Four (4) of the twenty (20) test items were significant at the .05 level when intercorrelated with the rating scale items. There were two (2) positive and three (3) negative correlations.

As in Objective VII, this objective contains many items to evaluate the pre-service institute, while at the sametime, a limited amount of rating scale items are included to determine the extent to which the in-service objective is being met. The limited number of test items which are significant at the .05 level tend to indicate that the test items are not adequately measuring this objective.

Objective IX

(To develop the competence of the teacher to effectively manage and organize the related classroom and laboratory)

There were a total of seven (7) achievement test items and ten (10) rating scale items which relate to Objective IX. There were three (3) test items which were significant at the .05 level when compared with the rating scale items. There was only one (1) positive correlation for this objective. Five (5) negative correlations were recorded.

Intercorrelations of Institute Objectives

In order to determine how much relationship existed among the eight (8) Institute objectives, a correlational analysis was made.

The data can be considered from the three sets of correlations, which were obtained:

1. Intercorrelations of the eight (8) Institute objectives as measured by the achievement test (Table LXX)
2. Intercorrelations of the eight (8) Institute objectives as measured by the In-Service Rating Scale (Table LXXI)
3. Correlations of Institute objectives measured by the achievement test with Institute objectives measured by the Rating Scale (Table LXXII)

Achievement Test Intercorrelations

Table LXX presents the intercorrelations of the objectives as measured by the Achievement Test. It will be noted that Objective IV (involving the development and use of instructional aids) is not significantly correlated with (and, therefore, relatively independent from) Objectives II, III, and VI.

Objective VI (evaluation of students) would also appear to be relatively independent of all the other Objectives, although it does correlate significantly with the Total Achievement score.

With the exception of Objectives IV and VI, the Institute Objectives are highly intercorrelated, and suggest that the Objectives, as stated, are measuring much the same thing, probably overall achievement, meaning that persons who profited academically from the Institute tended to profit to much the same extent in all areas covered by the program objectives.

Rating Scale Intercorrelations

Table LXXI presents the intercorrelations among the Institute Objectives as measured by the In-Service Rating Scale. It can be seen that Objective II (understanding the organization and philosophy of vocational education) is not related to Objectives VI, VII, and VIII. In all other cases, the Objectives are highly intercorrelated, suggesting that, as above, persons who acquired knowledge and skills in the Institute did so to a nearly equivalent extent on all areas covered by the Objectives. It may be, therefore, that the Rating Scale is yielding not independent assessments of segments of teaching skills, but instead an overall or generalized "Good Teaching" measure. Persons who do well in one area, therefore, tend to do well in all areas.

Intercorrelations of Rating Scale And Achievement Test Objectives

Since the Institute Objectives remain the same, whether measured by the Achievement Test (acquired knowledge) or the Rating Scale (demonstrated skill in applying the knowledge acquired), it would be expected that correlations between the two methods of assessing the attainment of an Objective would be high.

Table LXXII, however, presents evidence to the contrary. It can be seen that in every case of correlating the achievement and rating scores in any one Objective, the correlation does not reach statistical significance (as shown in the "boxed" values in the Table) Most surprising is the correlation of .00 between total achievement and total rating scores, indicating exactly zero relationship between how much was learned and how proficient the skill at teaching as measured by the achievement and rating instruments.

It is apparent, then, that the instruments are in need of revision, and the Objectives in need of clarification. When this is done, prior to the next Institute, an attempt will be made to have items relate more closely on the two instruments. In addition, attention will be given to assuring that items are assigned properly to their objective, and that objectives are represented by more equal numbers of items on both the achievement test and the rating scale.

Intercorrelations Between Institute Objectives As Measured By Achievement Test Performance of Participants

TABLE LXX

Objective	II	III	IV	V	VI	VII	VIII	IX	Achiev. Total
II	1.00	.23*	-.06	.33*	.15	.40*	.27*	.27*	.50*
III		1.00	.13	.20*	.04	.35*	.34*	.45*	.57*
IV			1.00	.23*	.10	.24*	.27*	.25*	.37*
V				1.00	.13	.34*	.47*	.43*	.62*
VI					1.00	.09	.16	.13	.26*
VII						1.00	.44*	.44*	.78*
VIII							1.00	.56*	.81*
IX								1.00	.73*
Achiev. Total									1.00

* $p < .05$

Intercorrelations Between Institute Objectives As Measured By Third Teacher Educator Ratings of Participants

TABLE LXXI

Objective	II	III	IV	V	VI	VII	VIII	IX	Rating Total
II	1.00	.20*	.25*	.32*	.10	.11	.18	.58*	.80*
III		1.00	.61*	.69*	.47*	.55*	.80*	.66*	.62*
IV			1.00	.58*	.35*	.60*	.69*	.53*	.57*
V				1.00	.80*	.74*	.69*	.74*	.78*
VI					1.00	.65*	.49*	.49*	.54*
VII						1.00	.73*	.47*	.56*
VIII							1.00	.63*	.63*
IX								1.00	.89*
Rating Total									

* $p < .05$

Intercorrelations Between Institute Objectives As Measured by Teacher Educator Ratings Of Participants and Institute Objectives As Measured By Achievement Test Performance*

TABLE LXXII

Rating \ Achiev.	II	III	IV	V	VI	VII	VIII	IX	Achiev. Total
II	-.19	-.24*	.11	-.10	.09	-.03	.01	-.15	-.09
III	.04	.08	.09	-.10	-.02	.09	-.04	.01	.03
IV	-.03	.00	.10	-.07	-.02	.16	.02	.01	.06
V	.02	.18	.21*	-.01	.07	.17	.08	.17	.18
VI	.08	.14	.23*	.08	.12	.16	.13	.28*	.23*
VII	.08	.22*	.17	.01	.05	.16	.11	.15	.19
VIII	.02	.13	.09	-.16	.11	.11	-.03	-.01	.04
IX	-.06	-.03	.07	-.19	.11	-.02	-.15	-.12	-.11
Rating Total	-.10	-.07	.17	-.12	.12	.05	-.01	-.04	.00

*$p < .05$

Summary of Mean Scores for Institute Objectives For Third of Three Teacher Educator's Ratings

Table LXXIII lists the eight project objectives and the corresponding number of rating scale items which relate to each objective. Also shown is the mean for each objective, the item mean within the objective, and the totals for each category.

The mean for each objective was determined by totaling the means for each item relating to that objective. Similarly, the mean for each item which is associated with an objective was determined by dividing the objective mean by the number of rating scale items found in the objective.

Example: Eight rated competencies were derived from Objective II. Dividing the objective mean (30.37) by the number of items contained in the objective (8) equals the item mean (3.79). Referring to the in-service evaluation form (See Appendix C-5) a rating of five (5) indicates an excellent rating; likewise a rating of one (1) is considered unsatisfactory. A rating of three (3) indicates an average rating.

The data reveals that each of the eight project objectives and the forty-two observed competencies were rated above average by the teacher educator. No objectives were rated at the unsatisfactory or poor level.

It is evident from the table that each of the eight objectives rated by the teacher educator, from observed teaching performance, was given an above average rating. (Note: The data represents only the teacher educator's third evaluation).

Because the item means for each of the eight (8) objectives are so similar, it cannot be said that any one objective was reached to any greater degree than any of the other objectives.

Mean Scores by Objectives for Objective Subscales and Objective Items for Third Teacher Educator Rating of Institute Participants

TABLE LXXIII

OBJECTIVE	NO. OF ITEMS FOR OBJECTIVE	MEAN FOR OBJECTIVE	MEAN FOR ITEMS WITHIN OBJECTIVE
II	8	30.37	3.79
III	2	7.51	3.75
IV	1	3.76	3.76
V	8	29.80	3.73
VI	6	21.75	3.62
VII	3	11.11	3.70
VIII	4	15.29	3.83
IX	10	38.07	3.81
TOTAL	42	157.66	3.75

Summary of Mean Scores for Institute Objectives For The Institute Achievement Test

Table LXXIV shows the eight institute objectives and the corresponding number of test items which relate to the objectives. Also shown are the mean for each objective and the test items within each objective.

The item mean is determined by dividing the objective mean by the total number of items which relate to the objective.

Example: Nine (9) test items relate to Objective II. Dividing the objective mean (7.1) by the total number of items found within that objective (9) determines the item mean (.789).

The three (3) objectives which had the highest item mean scores were:

Objective II (.789) - (To develop an understanding of the organization and philosophy of vocational education, specifically in the area of Trade and Industrial Education);

Objective V (.788) - (To develop the competence of the teacher in using various teaching techniques (methods) in conducting related and laboratory classes;)and -

Objective IX (.771) - (To develop the competence of the teacher to effectively manage and organize the related classroom and laboratory)

It is the concenses of the EPDA Staff that the item mean scores for the three above objectives were met at the recorded high level primarily for two reasons:

1. Sufficient time was devoted to the objective to adequately cover the specific topics within the objective, and,
2. Work sessions were provided at the conclusion of the topic presentation so that the participants could see the relevance of the topic to the actual teaching situation, i.e., if for example, a topic concerned with "progress charts in the laboratory" was presented, a work session devoted to the construction of a progress chart would immediately follow the presentation.

Although all mean scores within an objective were above the .500 level, the following two objectives received the lowest item mean scores:

Objective VI (.588) - (To develop the competence of the teacher to evaluate students and teaching processes in conducting related and laboratory classes;) and,

Objective III (.638) - (To develop an understanding of the adolescent's physical and mental development and to become adequately equipped to deal with behavior problems of the student).

It is suggested in future institutes that additional time be devoted to topics relating to the phychology of the adolescent and evaluation techniques. Further, it is suggested that actual on-hand experiences be provided during the summer institute whereby the participants would be given the opportunity to give presentations to high school youth. This could be accomplished either by arranging for the high school student to come to the college campus in a micro-teaching situation, or by prior arrangements with local public schools in the area, who are offering vocational enrichment programs during the summer months.

Mean Scores by Objectives for Objective Subscales and Objective Items for the Institute Achievement Test

TABLE LXXIV

OBJECTIVE	NO. OF ITEMS FOR OBJECTIVE	MEAN FOR OBJECTIVE	MEAN FOR ITEMS WITHIN OBJECTIVE
II	9	7.1	.789
III	13	8.3	.638
IV	4	2.7	.675
V	8	6.3	.788
VI	8	4.7	.588
VII	31	21.6	.697
VIII	20	13.4	.670
IX	7	5.4	.771
TOTAL	100	69.9	.669

Supplementary Data from Achievement Test

Item Analysis

Tables LXXV, LXXVI, and LXXVII present information regarding the individual items on the Institute Achievement Test.

Table LXXV presents Easiness Index values for each of the one-hundred (100) test items. The Easiness Index reflects the proportion of participants who marked each item correctly, that is, for the first question in the test, the Index of .92 means that 92% of the participants got the item correct. The Easiness Index may be used, therefore, to determine the extent to which test content was mastered by the Institute participants.

The Descrimination Index (Table LXXVI) reflects the extent to which the item "discriminates" between persons in the top 27% and bottom 27% in their achievement test scores. In general, a Discrimination Index above +.30 suggests that people who got that item correct did well on the entire test, while persons missing that same item did less well on the entire test. Discrimination Index values near .00 mean that the item does not "sort out" persons doing well from those doing not so well on the entire test.

The Correlation Coefficient (Table LXXVII) reflects how well each item contributes to the total test score. Like the Discrimination Index, it serves as a guide to whether persons doing well on a single item tend to do well on the entire test.

Data from these three tables are of value in judging the effectiveness of evaluation instruments. For future Institutes, information will be drawn from these tables to assist in building new instruments, both as pre-tests and as post-tests, so that an estimate of actual knowledge gained during the Institute may be better ascertained.

Easiness Index Values From Item Analysis of Achievement Test Data For Total Participant Sample

TABLE LXXV

Item	Easiness Index	Item	Easiness Index	Item	Easiness Index
1	.92	35	.78	68	.71
2	.67	36	.52	69	.76
3	.98	37	.87	70	.71
4	.21	38	.96	71	.78
5	.60	39	.50	72	.91
6	.79	40	.84	73	.41
7	.70	41	.18	74	.81
8	.75	42	.40	75	.71
9	.98	43	.76	76	.44
10	.95	44	.98	77	.74
11	.45	45	.77	78	.51
12	.75	46	1.00	79	.01
13	.88	47	.98	80	.75
14	.99	48	.84	81	.05
15	.91	49	.76	82	.30
16	.54	50	.89	83	.85
17	.96	51	.51	84	.65
18	.91	52	.54	85	.79
19	.95	53	.37	86	.95
20	.87	54	.71	87	.88
21	.77	55	.75	88	.10
22	.95	56	.95	89	.83
23	.86	57	.17	90	.23
24	.79	58	.95	91	.18
25	.87	59	.49	92	.83
26	.93	60	.52	93	.18
27	.94	61	.71	94	.87
28	.77	62	.89	95	.23
29	.10	63	.77	96	.81
30	.99	64	.82	97	.52
31	.25	65	.75	98	.88
32	.72	66	.71	99	.88
33	.76	67	.59	100	.91
34	.94				

Discrimination Index Values From Item Analysis of Achievement Test Data For Total Participant Sample

TABLE LXXVI

Item	Discrim. Index	Item	Discrim. Index	Item	Discrim. Index
1	.13	35	.16	68	.40
2	.23	36	.53	69	.54
3	.09	37	.09	70	.58
4	.19	38	.09	71	.28
5	.66	39	.08	72	.19
6	.32	40	.21	73	.34
7	.15	41	.25	74	.19
8	.21	42	.02	75	.52
9	.09	43	.45	76	.22
10	.00	44	.03	77	.47
11	.43	45	.28	78	.16
12	.42	46	.00	79	-.03
13	.00	47	.04	80	.31
14	.03	48	.27	81	-.15
15	.06	49	.22	82	.24
16	.26	50	.13	83	.30
17	.12	51	-.01	84	.33
18	.12	52	.33	85	.25
19	.18	53	.33	86	.06
20	.25	54	.43	87	.22
21	.06	55	.29	88	.01
22	.09	56	.03	89	.22
23	.32	57	-.05	90	-.09
24	.24	58	.15	91	.23
25	.16	59	.52	92	.37
26	.07	60	.25	93	.29
27	.18	61	.43	94	-.02
28	.23	62	.18	95	.19
29	.01	63	.33	96	-.01
30	.03	64	.41	97	.37
31	.07	65	.22	98	.13
32	.19	66	.54	99	.21
33	.41	67	.52	100	.04
34	.13				

Correlation Coefficient Values From Item Analysis of Achievement Test Data For Total Participant Sample

TABLE LXXVII

Item	Correl. Coeff.	Item	Correl. Coeff.	Item	Correl. Coeff.
1	.187	35	.141	68	.288
2	.234	36	.444	69	.482
3	.308	37	.099	70	.494
4	.202	38	.183	71	.224
5	.473	39	.042	72	.340
6	.285	40	.211	73	.280
7	.184	41	.253	74	.193
8	.309	42	-.014	75	.430
9	.296	43	.394	76	.117
10	.064	44	.099	77	.370
11	.396	45	.280	78	.136
12	.389	46	.000	79	-.204
13	.060	47	.123	80	.282
14	.183	48	.309	81	-.180
15	.078	49	.210	82	.139
16	.229	50	.150	83	.413
17	.300	51	-.002	84	.296
18	.169	52	.262	85	.223
19	.416	53	.325	86	.158
20	.225	54	.369	87	.261
21	.130	55	.265	88	.004
22	.240	56	.008	89	.273
23	.438	57	-.061	90	-.071
24	.270	58	.300	91	.265
25	.166	59	.427	92	.388
26	.143	60	.155	93	.307
27	.328	61	.414	94	.083
28	.278	62	.237	95	.150
29	.000	63	.271	96	-.010
30	.266	64	.402	97	.326
31	.022	65	.206	98	.232
32	.112	66	.497	99	.218
33	.375	67	.402	100	.152
34	.250				

"A Training Program to Prepare Industrial Personnel to Become Teachers for Trade and Industrial Education"

PART VI

APPENDIX

August 30, 1970

SP004462

The appendix section of the report contains copies of material used during the pre-service and in-service phase of the project.

In an attempt to minimize this section of the report, the following material does not represent the complete collection of material distributed and utilized during the project. However, it does represent a cross-section sample of materials distributed.

For organizational purposes, the appendix section is divided into four (4) major headings. They are:

~~I. Orientation Material~~
II. Institute Instruction Sheets and Assignment Sheets
III. Evaluation - Pre-Service and In-Service
IV. Consultant Personnel Data and Outlines
of Presentation

~~I.~~ Orientation ~~Material~~

~~A-1~~ Project Brochure

~~A-2 Follow-Up Letter to Local Administrators~~

A-3 Application ~~for Evaluatio~~n

A-4 Request for ~~Application Form~~

~~A-5 Letter acknowledging receipt of~~
~~preliminary application form~~

~~A-6 Participant selection letter -~~ Kent
~~State University~~

~~A-7 Participant selection letter - University of Toledo~~

~~A-8~~ Information Sheets ~~- Participant~~

II. Institute Instruction Sheets and Assignment Sheets

~~B-1 Text Book Information Sheet~~

B-2 Definition of Terms - Vocational

~~B-3 Vocational Education Basic Organization Chart - State of Ohio~~

~~B-4 Basic Philosophical Principles - Vocational Education~~

B-5 Desirable Teacher Characteristics

B-6 Occupational Analysis Information Sheet

~~B-7 Blocking the Trade - Assignment Sheet~~

B-8 Analysis Information Sheet

~~B-9 Determining What to Teach - Assignment Sheet~~

~~B-10 Lesson Plan - Steps and Key Points~~

~~B-11 Analyzing the Block - Assignment Sheet~~

~~B-12 Frequency Chart - Assignment Sheet~~

~~B-13 Developing Course Content - Assignment Sheet~~

~~B-14 School Visitation - Assignment Sheet~~

~~B-15 Principles of Learning~~

B-16 The Teaching Steps

B-17 Lesson Plan Format (Manipulative)

B-18 Four-Step Lesson Plan - Pictorial Illustration

~~B-19 Lesson Plan Sample (Manipulative)~~

removed - not reproducable

B-20 Lesson Plan Sheet (Assignment Sheet)

B-21 Job Breakdown Sheet - (Manipulative)

B-22 Important Steps and Key Points

B-23 Job Sheet Format - Assignment Sheet

B-24 Job Plan Sheet Format - Assignment Sheet

B-25 Job Breakdown Sheet (Related Lesson)

~~B-26 Application Step Suggestions~~

B-27 Planning a Daily Lesson Plan (Related)

~~B-28 Sample Lesson Plan - Related Technology~~

B-29 Sample Lesson Plan - Related - General

B-30 Check Sheet for Practice Teaching

B-31 Types of Questions

B-32 Rules on Oral Questioning

B-33 The Techniques of Questioning

B-34 How to Use Oral Questioning and Discussions

B-35 Assignment Sheet Format

B-36 Disadvantages of Instruction Sheets

B-37 How to Use Instruction Sheets

B-38 Information Sheet Format

B-39 Assignment Sheet Format

B-40 Developing Appropriate Student Conduct

~~B-41 How to Maintain Good Discipline~~

B-42 The Poor Scholar's Soliloquy

~~B-43 Converting Raw Scores to Letter Grades~~

~~B-44 Methods of Recording Daily Attendance~~

B-45 Institute Final Assignment

~~B-46 School Visitation - Assignment Sheet~~

B-47 Typical Seminar Agendas

III. Evaluation - Pre-Service and In-Service

C-1 In-Service Observation Rating Forms

C-2 Sample of Study Guide

C-3 Institute Questionnaire Form

C-4 Final Examination - Pre-Service Institute

C-5 In-Service Graduated Evaluation Form

IV. Consultant Personnel Data and Outlines of Presentation

D-1 Consultants Detailed Resume and Topical Outlines - University of Cincinnati

D-2 Consultants Detailed Resume and Topical Outlines - Kent State University

D-3 Consultants Detailed Resume and Topical Outlines - The Ohio State University

D-4 Consultants Detailed Resume and Topical Outlines - University of Toledo

KENT STATE UNIVERSITY
College of Education

Vocational Education Trade and Industry Teacher Education

DEFINITION OF TERMS

ANALYSIS- The process of resolving any problem or situation into its component elements.

ANALYSIS, TRADE- A systematic listing of all the things that the learner of a trade should be taught.

ASSIGNMENT SHEET- A type of instruction sheet containing a statement of the job or project to be undertaken; problems to be solved; instructions or other information to be read and studied; and reference materials to be used.

ASSIGNMENT_ The lesson or job that has been allotted to a pupil or a class.

AUDIO-VISUAL AID- Any device by means of which the learning process may be encouraged or carried on through the sense of hearing and/or the sense of sight.

CHECK POINT- A certain point or stage of a job or assignment when the work of the student is inspected to ascertain that the preceding operations are satisfactory before continuing toward the successful completion of the job or assignment.

COURSE CONTENT- A list or outline of areas of information and skills included in the course of study.

COURSE OF STUDY- The organization and arrangement of the teachable material or subject matter obtained through the trade analysis so that the teaching job will be well done in the shortest possible time, with the least amount of confusion and the least amount of student effort.

DEMONSTRATION- An objective method of presentation in which the teacher performs the operation or operations before the class or individual student and explains what he is doing as he proceeds.

FOUR STEP LESSON- An organized method of presenting material to a student or class that consists of the following sequence.

1. PREPARATION- The instructor assembles all materials for the lesson. Then he must gain the attention of the student and arouse his interest in the lesson.
2. PRESENTATION- The instructor demonstrates and/or explains exactly what is to be learned.

3. APPLICATION- The student performs individually the assignment or operations to be learned with the aid of the instructor.
4. TEST- The student performs the assignment or operations and is checked for efficiency and skill by the instructor.

FREQUENCY CHART- A chart showing the frequency of occurrence of operations in a job or series of jobs.

INDIVIDUAL DIFFERENCES- Differences such as mental, physical, environmental, cultural and emotional, which in their totality, distinguish one individual from another.

INFORMATION SHEET- A type of instruction sheet which explains in detail some unit of trade information or theory.

INSTRUCTION SHEET- Any printed or written sheet used by the teacher as a teaching device to supplement his related or manipulative instruction or demonstration.

INSTRUCTIONAL UNIT- Any part or division of a course that can be considered as complete in itself and can be taught as a whole.

JOB- An assignment performed by a student in order to develop skill or to "try out" the application of a principle; a unit of the trade or occupation consisting of two or more operations.

JOB ASSIGNMENT- The assigning of a student or a group of students to a particular work or performance activity.

JOB PLAN SHEET- A type of instruction sheet planned and prepared by the student which gives directions for doing a series of operations or procedures involved in a complete job; may include considerable detail or may consist of a working drawing or a sketch.

JOB SHEET- A type of instruction sheet which gives directions for doing a series of operations involved in a complete job; may include considerable detail or may consist of a working drawing or a blueprint.

KEY POINT- Something important about a step that must be understood and remembered. It is a key point when it makes or breaks the success of performing the step; prevents injury to the operator and others; prevents damage to the equipment or materials; makes step easier to do because of some knack, or special timing, feel, or bit of special information.

LESSON- A single complete teaching unit devoted to a specific limited topic, skill, or operation.

LESSON PLAN- A teaching outline of the important points of a lesson arranged in the order in which they are to be presented; may include objectives, points to be made, questions to ask, references to materials, assignments, etc.

MANIPULATIVE- The trade or occupational skills necessary in order to use the tools, machines, materials and processes of a given trade or occupation.

MANIPULATIVE SKILL- See manipulative.

METHOD- An orderly procedure or process; a regular way of doing anything; the manner in which a lesson is presented to a learner or a group of learners.

OBJECTIVES- Air; end in view; or purpose of a course of action or a belief; that which is anticipated as desirable in the early phases of an activity and serves to select, regulate, and direct later aspects of the act so that the total process is planned and integrated.

OCCUPATION- The vocation or economic pursuit that is an individual's livelihood.

OPERATION- A definite set of steps requiring physical performance which form a convenient teaching unit or demonstration, generally considered the smallest practical unit in trade or occupational instruction. (May be called a procedure in certain occupations.)

OPERATION SHEET- An instruction sheet arranged in a logical and sequential order, usually for the accomplishment of some unit part of a job requiring manipulative skills. (In some occupations it is called a procedure sheet).

PROGRESS CHART- A graphic representation noting student progress through the total units to be learned, which is available to and easily understood by both student and teacher.

RELATED TECHNOLOGY- Consists of all of the items of trade or occupational knowledge necessary for a thorough understanding of tools, machines, materials, processes, principles, and skills of a given trade or occupation.

SAFETY PRECAUTIONS- Advice orwarning to guard against occupational hazards to prevent accidents.

SHOP ORGANIZATION- Procedures followed to instill in the student the type of cooperative effort necessary to permit the class to function effectively and efficiently. May cover such things as: shop or laboratory maintenance tools, supplies, inventory, safety, work assignments,etc.

STEP- An important part of an operation or procedure when something happens to advance the work.

TEACHING AID- An auxiliary instructional device such as written material, chart, drawing, picture, film, mockup, or working model, intended to facilitate learning.

TEST- Any series of questions, exervices or other means of measuring the skill, knowledge, intelligence, capacities, or aptitudes of an individual or a group.

TRADE INFORMATION- See related technology.

TRADE, SKILLED- An industrial occupation requiring a high degree of manipulative skill and technical knowledge, usually encompassing a wide range of related activities, which are secured through a combination of job instruction, trade instruction, and work experience.

UNIT OF INSTRUCTION- See instructional unit.

College of Education
KENT STATE UNIVERSITY
Trade and Industrial Education

DESIRABLE TEACHER CHARACTERISTICS

The actions, words, and habits of a teacher should serve as an example in the development of students. The quality and quantity of the work done by the students, their appearance and deportment, the conditions of the shop and the school, all reflect the standards set and maintained by each teacher.

What characteristics must a person possess to teach successfully the many students who enter the school shop to prepare for their life work? Every student differs in some way from every other. They are all inexperienced. They come from all walks of life. Some come from friendly, wholesome homes, are well-mannered and amenable to guidance and instruction. Others come from broken or maladjusted homes, are ill-mannered, inclined to be rebellious and afraid to face the future. They all respond to instruction and assignments if the right techniques are used. What qualities are needed to influence them so that they will develop respect for teachers and react favorable to vocational instruction?

1. SOME DESIRABLE TRAITS

Following is a relatively complete list of traits, which an ambitious teacher seeking professional success should try to acquire.

- Unselfishness
- Fairness
- Open mindedness
- Patience
- Maturity
- Self control
- Energy
- Firmness
- Forcefulness
- Dignity
- Courage
- Resourcefulness
- Imagination
- Sincerity
- Enthusiasm
- Sense of humor

OTHER DESIRABLE TEACHER TRAITS ARE

- Tact
- Optimism
- Sympathy
- Courtesy
- Alertness
- Honesty
- Dependability
- Initiative
- Good judgment
- Orderliness

2. MINIMUM DESIRABLE TRAITS

It is not feasible to expect all teachers to be able to develop all of these traits. However, there is a minimum number which every teacher should develop as early as possible in his teaching career. A listing brief explanation of these minimum traits follows.

a. Unselfishness -- to be able to give or contribute something to others even though you do not receive credit for doing so.

b. Fairness -- to be impartial to everyone even though you may not personally like an individual.

c. Openmindedness -- to be able to see the other person's viewpoint.

d. Patience -- to be willing to repeat instructions, answer questions and show again and again skills or points of information without becoming irritated or annoyed.

e. Maturity -- to avoid pettiness in contacts with other concerning their mistakes and failures.

f. Self Control -- to maintain an even temper in situations that are difficult to handle.

g. Energy -- to stimulate good work and straight thinking on the part of students.

h. Firmness -- to be able to make others comply with your directions without being bossy.

i. Forcefulness -- to give instruction and orders in such a way that students respect your authority.

j. Dignity -- to display a refined attitude without being cold and indifferent.

k. Courage -- to have the strength to act upon convictions that have proved right.

l. Resourceful -- to be able to do the best with what is available, and thereby help others to help themselves.

m. Imagination -- to be able to look ahead and apply new ideas to one's own situation, and thereby to stimulate students to original thinking.

n. Sincerity -- to let your own actions support your words and thereby cause students to have complete confidence in you.

o. Enthusiasm -- to approach your tasks with a zest and buoyancy which will be an inspiration to others.

p. Sense of Humor -- to be able to enjoy a joke or facetious remark even when it applies to you.

"A Service Occupations Teacher Looks at Occupational Analysis"

It would seem to me that my occupation of service to articles or to persons is just as significant in the area of vocational education as occupations where things are manufactured or articles are made. It also seems to me since skills are taught in my course and knowledge about these skills is also taught, that my course should be subjected to an analysis, the same as a custom trade or occupation.

It bothers me that most texts and written material about occupational analysis are from the pen of a craftsman of a custom trade. The terms he uses and the examples he gives and even the language he speaks, are at the best, vaguely familiar to me. It seems that we should be able to develop some thoughts and write them down in terms that would be more acceptable to the service occupations teachers.

As I have studied the information, and listened to lessons concerning occupational analysis, up to this point, the thought keeps occurring in my mind that perhaps this thing of occupational analysis is a misnomer. It would appear to me better if they called it course analysis, for really what we are doing is analyzing the course that we are teaching in our particular school. It is quite impossible for me to analyze my complete occupation, and even if I could, this would have limited practical application to teaching the course in my school. So, in my mind, I am going to call it course analysis.

Now the other thing that bothers me a lot is this thing of jobs that the custom people keep talking about. It just doesn't apply in my situation. We perform services, we don't make jobs. It would seem more logical to me to keep a record of each service activity that I have my pupils perform throughout the year than to say that they will do certain jobs. This could be done on a progress chart by recording the name of the person, the name of the object or the description of the article, so as to identify the service that was performed. Then there must be a listing and a checking off of each operation that was performed on this serviced article or person.

Now I can go along with the phrasing of the operations. It seems logical to eliminate the words "how to", but to imagine their being there, preceding the actual title of that operation. There must be a listing of these under each service activity that I have my pupils do throughout the course, whether it be a practice servicing or for a customer, patron, or article. If I keep a record of these service activities and operations during the year or a semester or a given time, there would be a pattern developing that would show the most commonly performed operations by pupils during that given amount of time. If I accepted ten service activities in the lab and recorded all operations performed by pupils on these, I could choose the most commonly performed operations by simply counting the number of times each was performed. This will not necessarily give me an accurate picture of what operations will be performed most frequently next year or at any other given time, but it does indicate a good starting place for my teaching of operations. For even though I can't say that next year will be a duplicate of this year as far as service activities are concerned, I can say because I spread it over a whole year's time and will probably have similar cars or articles or patrons next year, that the operations performed this year, may be assumed to be typical and, therefore, a legitimate guide for next year's teaching schedule. To accomplish this, I think I would need a progress chart from the beginning of the year, or starting right now, so each day we could mark the service activities and check off the operations performed in each.

Now my big challenge at this time is to master the skill of recognizing an operation and phrasing it correctly. It should assume the words "how to" and then be brief, but descriptive of the skill that the pupil is practicing and learning. I should stay away from describing the operation by the use of a tool or an instrument or a machine, and each of these operations should conform to the eight criteria established in the textbook. Now, if I would follow this line of reasoning I think I could establish one of the rectangular charts suggested in the book and demonstrated by the class teacher.

In the two column analysis approach, I can utilize the information gathered by the rectangular chart method. I like the looks of this two column analysis, because it stacks the skill operations beside the related topics that I have been teaching in the classroom. This seems much more practical for me because we spend so much of our time in classroom and the skills are so dependent on the understanding and technical information that is covered in the related class. I am going to choose a block of my occupation and limit as much space as I need on the two column chart to information from just that block. The rectangular chart would help me here because this shows the most popular - the most commonly used - skills. The most often performed skills are placed at the top of my left hand column. This information can be transferred directly off the rectangular chart onto the two column chart.

The procedure for listing related topics is quite similar to that of listing operations. It seems that all I have to do is sort out the titles of my lesson plans for this particular block, and then arrange the lesson titles from simple to complex or at least in a logical sequence. I could even put these in units in that right hand column, and set off a unit for a particular area of knowledge and list the six lesson titles within that unit in the order that they should be taught, then leave a little space and go on to the next unit or the next lesson to be taught. I think it would be wise for me to double space these things to allow for some rearrangement.

As I look back on some of the lessons I have taught and then consider this half sheet of paper given for related topics, I think I see a need for making my titles as short and descriptive as possible, not only for the sake of analysis, but it would perhaps be easier for pupils to comprehend shorter titles.

This approach to analysis seems much more practical for my situation and it seems to me if I had my course outlined in this way with a chart for perpetual analysis and then the two column sheet to show at a glance the correlation between skills and information, I'd be in a much better position next fall to shart off teaching by following a logical pattern, and also to be able to use this information in the writing of my more detailed course of study.

B-8 Analysis Information Sheet

EIGHT IMPORTANT POINTS IN IDENTIFYING OPERATIONS

1. It occurs frequently in an occupation with considerable uniformity of content; it is relatively constant in time and geographically.

2. It involves teachable content.

3. It is a distinct unit which, when completed, makes the worker feel that he has come to a good stopping place.

4. It has its greatest value when combined with other operations; alone it is usually of little value.

5. The length is such as to make suitable content for a class demonstration.

6. When it is put with other operations in combination, they produce or service something larger without gaps or overlapping between them.

7. It involves depicting, shaping, forming, or assembling.

8. It can be broken down in definite steps of procedure.

KENT STATE UNIVERSITY
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Division of Vocational Education

VE 305

OPERATIONS IN OCCUPATIONS

Auto Body Repair

BLOCK: Painting

Operations:

1. De-Wax
2. Mask Panel
3. Prime Paint
4. Color Paint
5. Glaze Fill

Machine Shop

BLOCK: Lathe

Operations:

1. Knurl in lathe
2. Straight turn
3. Cut threads
4. Turn taper (compound)
5. Drill in lathe

Cosmetology

BLOCK: Facials

Operations:

1. Prepare patron
2. Analyze skin
3. Apply cleansing cream
4. Apply emollient
5. Apply galvanic current

Auto Mechanics

BLOCK: Brakes

Operations:

1. Bleed brakes
2. Turn drums
3. Rebuild master cylinder
4. Adjust brakes
5. Remove brake shoes

STEPS IN AN OPERATION

DRUGSTORE SELLING

Wrap Breakable Merchandise

Instructional Steps:

1. Select box, larger than original article.
2. Place Protective material in bottom of box.
3. Place article.
4. Stuff p.m. around article.
    a) Pack snugly.
    b) Protect all corners.
5. Place layer p.m. over top.
6. Close box.
7. Tie twine around both ways.
8. Wrap in heavy paper.
9. Tie securely--twine, two strands.
10. Label.

TELEVISION SERVICE

Install Antenna

Instructional Steps:

1. Assemble antenna.
2. Connect lead-in to antenna.
3. Determine location antenna.
4. Install.
5. Construct tower.
6. Install arrestor.
7. Ground mast and tower.
8. Match lead-in to set.
9. Orient antenna.
10. Check signal.
    a) Lead-in for opens or shorts.
    b) Lightning arrestor.
    c) Lead off, set.
11. Check, eliminate ghosts.

CLOTHING CONSTRUCTION

Attach Waist Band by Machine

Instructional Steps:

1. Place wrong-side garment, right-side band together, centers matching.
2. Pin ends of band to ends of skirt, one side of band free.
3. Pin band in place, distribute gathers evenly.
4. Baste, stitch band in place.
5. Turn under raw edge, free side of band.
6. Pin band in position, just covering first stitching
7. Stitch close to edge.

GENERAL INFORMATION TOPICS

MACHINE SHOP

1. History of Drilling
2. Manufacture of Iron and Steel
3. Shapers in the Tool and Die Industry
4. Development of the Lathe
5. Making of Grinding Wheels

PRINTING

1. Printing in America
2. Invention of Printing
3. Gutenber, Caxton, Caslon, Bodoni, Goudy, Manutius
4. Papermaking
5. Composition of Books

PHOTOGRAPHY

1. History of Photography
2. Manufacture of Printing Papers
3. Manufacture of Film
4. Buying a Camera
5. Sending Pictures by Wire

DRUGSTORE SELLING

1. The Early Drugstore
2. Manufacture of Light Paper Articles
3. Development of Patent Medicine
4. Ready Prescriptions
5. Canging Trends in Drugstore Merchandising

CLOTHING

1. History of Sewing Machines
2. Development of Paper Patterns
3. Development of Synthetic Fivers
4. Clothing Production in the Colonies
5. Influence of Fibers on Fashions

GUIDANCE TOPICS

MACHINE SHOP

1. Occupational Opportunities for Machinists
2. The Successful Machinist
3. Opportunities for Advancement
4. Jobbing Shop Ownership
5. Employer-Employee Relations

SHEET-METAL WORKING

1. Increasing Use of Sheet Metal and Its Socioeconomic Implications
2. Opportunities in the Small Shop and in Industry
3. Sheet Metal in Modern Design
4. Employer-Employee Relations
5. Training for the Sheet-Metal Worker

PHOTOGRAPHY

1. Occupatinnal Opportunities
2. Free-Lance Photography
3. Corporation Photography
4. Selling Photo Supplies
5. Studio Photography

DRUGSTORE SELLING

1. Opportunites in the Drugstore Business
2. Owning a Drugstore
3. The Pharmacist
4. Ethics of the Drug Business
5. Departmental Growth

CLOTHING

1. Occupational Opportunites
2. Training for Dress Designers
3. Alteration Departments in Stores
4. Employer-Employee Relations
5. Custom Work

TECHNICAL INFORMATION TOPICS

MACHINE SHOP

1. Reading Working Drawings
2. Cutting Speeds and Feeds
3. Calculations for Tapers
4. Indexing Calculations

RADIO SERVICE

1. Radio Symbols and Schematics
2. Common Oscillator Troubles
3. A.C. Power Supply
4. Loop Antenna Troubles
5. Auto-Radio Power Supply Circuit

MECHANICAL DRAFTING

1. Clearances, Finishes, Tolerances, Fillets
2. Machine-Shop Operations
3. Instruments and Their Care
4. Dimensioning Rules
5. Threads, Bolts, Screws

ELECTRIC ARC WELDING

1. Electricity of Welding
2. Types of Electrodes
3. Nomenclature of Joints
4. Welding Symbols
5. Heat and Mechanical Treatment of Welds

DRUGSTORE SELLING

1. Pure-Food Laws
2. Licenses
3. Child-Labor Regulations
4. Customer Buying Motives
5. Safety Precaustions

CLOTHING

1. Choice of Seam Finishes in Relation to Fabrics
2. Availability of Patterns
3. Criteria for a Well-Fitted Garment
4. Selection of Sewing Equipment
5. Common Machine Troubles

THE TEACHING STEPS

- I. Preparation Step
  - A. Purpose
    - 1. To prepare students to learn
  - B. Procedure
    - 1. Obtain attention and arouse interest of group
      - a. Use an illustration
      - b. Tell story of incident related to lesson
      - c. Question and answer technique
        - (1) Ask direct questions covering known material
        - (2) Keep questions in logical sequence
        - (3) Lead into presentation step
      - d. Put on a demonstration
        - (1) Choose demonstration to fit the situation
        - (2) Ask carefully selected questions
        - (3) At climax lead into presentation step

- II. Presentation Step
  - A. Purpose
    - 1. To teach learners how to perform job or operation
  - B. Procedure
    - 1. Demonstrate the job or operation
      - a. Use developmental line of approach
      - b. Tell, show, explain, and illustrate
      - c. Emphasize the key points and safety factors
      - d. Develop steps through questions from students or instructor

- III. Application Step
  - A. Purpose
    - 1. To have pupils perform job or operation as nearly as possible the way it was demonstrated
  - B. Procedure
    - 1. Assign as many students as possible to perform the job or operation
    - 2. Supply each pupil with operation sheet, blueprint, or sketch
    - 3. Supervise performance of each student
      - a. Move from student to student at regular intervals
      - b. Ask questions to aid pupil in solving his difficulties
      - c. Check student's technique
      - d. Note effectiveness of teaching
      - e. Re-teach as necessary

- IV. Test Step
  - A. Purpose
    - 1. To determine whether pupil has performed job or operation satisfactorily.
  - B. Procedure
    - 1. Check the quality of the work
      - a. Dimensions, standards, finishes, precision, accuracy
    - 2. Check the quantity of the work
      - a. Time per piece or the number of pieces
    - 3. Check technique employed by student
      - a. Operation steps performed correctly
      - b. Operation steps performed in correct sequence
      - c. Tools properly selected and correctly used

THE TEACHING STEPS

From the analysis of your trade it is possible to select the skills, knowledge, and attitudes that must be taught. We have previously discussed a procedure for organizing, arranging and subdividing this reservoir of teaching material. Having decided on what is to be taught and when it should be taught, you must now decide on how a lesson should be taught.

Industrial teachers have for many years been using a pattern around which any lesson may be outlined and taught. This pattern is made up of the following four steps:

Step One: Preparation
The instructor assembles all materials, supplies, and equipment for the lesson. Then he must gain the attention of the student and arouse his interest in the lesson.

Step Two: Presentation
The instructor demonstrates and explains exactly what is to be learned.

Step Three: Application
The student performs individually, the operations to be learned with the aid and assistance of the instructor.

Step Four Testing
The student performs the operations by himself and is checked for efficiency and skill by the instructor.

The four steps will now be discussed more fully.

Preparation

Any demonstration to be interesting and effective must be smooth and run off like clock work. To accomplish this the instructor must have everything in readiness before he begins. Usually, it is desirable to run through the demonstration to be certain that it will click when the time comes. The demonstration should always be made with the same type of material and tools that the student will be expected to use. If possible, devise an instructional aid that will assist the student to more clearly understand the new idea. The instructor should make provision for the materials needed by the student, and clearly formulate in his mind the standard of work that will be acceptable from the learner.

The preparation of the lesson is only half completed when the instructor is all ready. The next step is to prepare the student to receive the lesson. There are many ways of doing this, but basically the procedure is the same. It is first necessary to secure the attention of the student and arouse his curiosity and interest in the lesson. Once this is accomplished it will be relatively simple to connect the new lesson with the student's previous experiences. If the instructor has properly performed the preparation of the student, the time will quickly come when the student will ask for additional information. This is the mark of success in step one.

Presentation

The demonstration is now performed and explained. The methods and teaching aids used will depend on the lesson, and on the previous experience of the student group. The successful instructor usually goes through the lesson step by step, taking as much time as seems to be desirable. He may pause at various spots to point out details that might escape the attention of the learner or to indicate the common errors. The instructor should ask questions that will encourage the student to think about the job. He should emphasize the safety factors and explain the why of the established procedure for the job. Throughout the demonstration, the student should be encouraged to ask questions.

A common mistake is to try to do too much at one time, the presentation step should not be too long. It would be more desirable to have two shorter demonstrations than one long drawn out one. The chief concern of the instructor is to show the learner how to do the job and to do it safely and efficiently. When the instructor feels that the student understands the lesson and is ready and anxious to try to do the operation alone, step two has accomplished its purpose.

Application

This is the try-out step. The student is now ready to attempt the job by himself under the supervision and encouragement of the instructor. Everything that the instructor has done up to this time was intended to help bring the student to the place where he can strike out for himself. However, his first efforts are likely to be rough and clumsy and frequently wrong. The student should clearly understand that the instructor is anxious to help him overcome his difficulties in this stage. Equally important, the student and instructor should realize that the student will overcome his difficulties only when he knows how the operation is to be done and then is given the opportunity to do it. In many cases, it will be desirable for the instructor to repeat his demonstration, or some part of it, in order to clear up a point or two. It may be necessary for the learner to repeat the steps of the lesson several times before he acquires the desired skill. When the learner is able to perform the task efficiently and safely, step three has been successfully completed.

Testing

The only real proof of a good job of teaching is found in the ability of the student to perform the operation efficiently and safely on his own. Accordingly, in the testing step the learner is required to do his best without any assistance. The instructor is thus able to determine exactly the nature of the student's difficulties, if any. Also the learner may satisfy himself that he is really capable of carrying on without help. Thus, a test when used in this way assists both the instructor and student, and indicates whether or not the learner is ready to proceed further.

B-17 Lesson Plan Format (Manipulative)

INSTRUCTOR'S LESSON PLAN
Manipulative Skills

Unit____________
Lesson____________

JOB (or operation):	Insert title of lesson
AIM (or purpose):	List what is to be achieved as a result of the lesson. Should be brief and concise. Need not be complete sentences. In some cases one may be sufficient.
TOOLS AND EQUIPMENT:	List tools, equipment and supplies necessary to teach the lesson.
MATERIALS:	
TEACHING AIDS:	
REFERENCES:	

I. PREPARATION (of the learner)

State specifically how attention of students is to be obtained and how interest is to be developed.
This step may be any length but is usually 3 - 5 minutes duration.
This step should lead smoothly into the presentation step.

II. PRESENTATION (of the skills):

Operation or Steps	Key Points (things to remember to do or say)

List each step and key point necessary to perform the operation or operations.
Length of presentation approximately 1/4 to 1/2 of an hour.
State steps clearly and concisely in occupational terms.
List steps in proper sequence.
Number each step consecutively.
Key points should be listed with steps where they apply.

(CONTINUED)

(Additional blank sheets can be ruled into two columns for notes for presentation step.)

II. PRESENTATION, continued

Instructional Topics	Things to Remember to Do or Say

III. APPLICATION (drills, illustrations, analogies, oral questions or assignments.)

Student is given assignment to perform involving the content presented.
Effectively motivate the student in making the assignment.
Generally the assignment should be completed in about one day.
The instructor supervises as much of the assigned work as possible.
Provision should be made for individual differences.
The assignment should indicate sources of material.

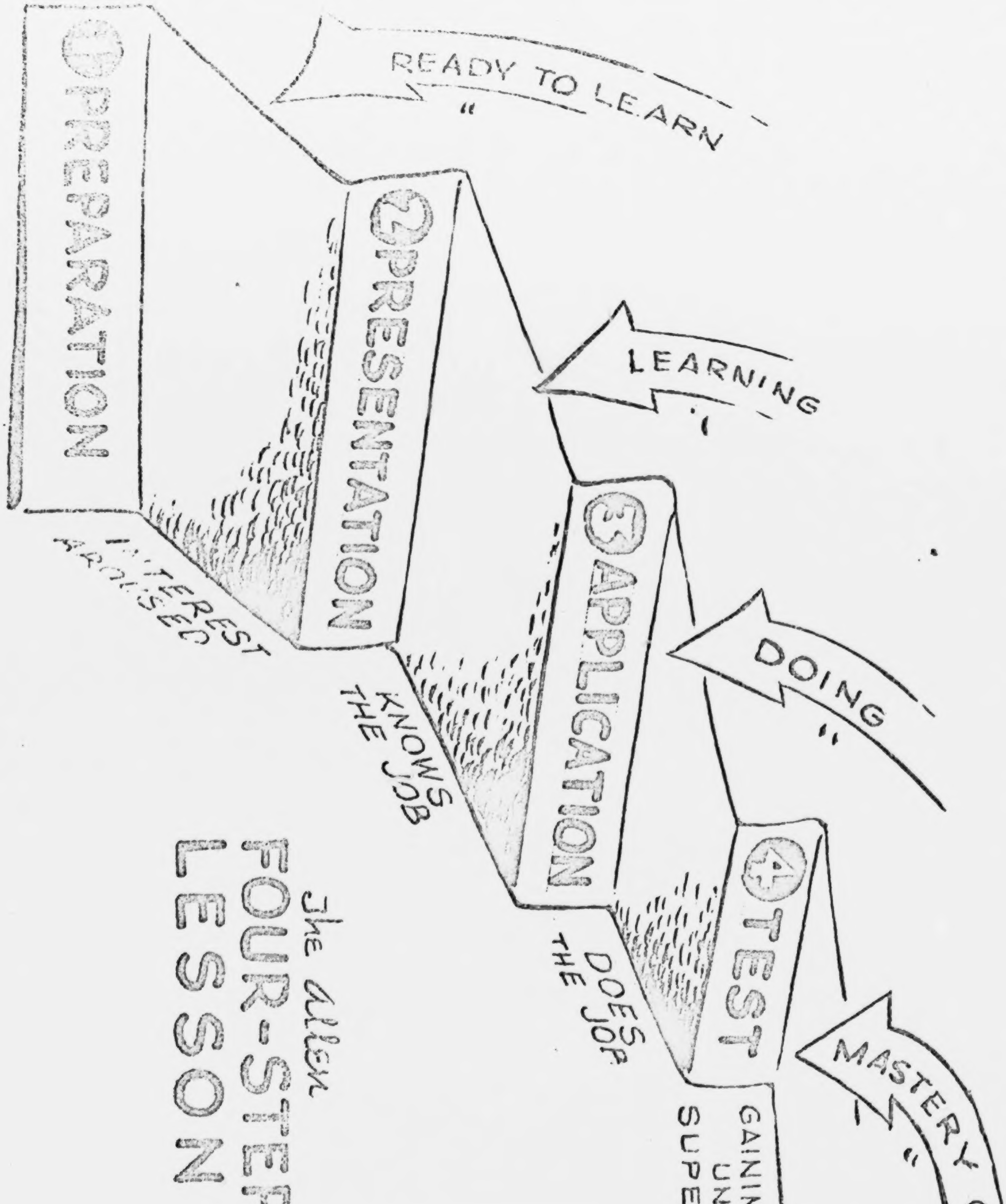
IV. TEST (final check on students comprehension of material presented)

Check on comprehension and application of content presented.

Suggested Reading for Student:

The Next Lesson Is:

B-18 Four-Step Lesson Plan - Pictorial Illustration


① PREPARATION
READY TO LEARN
INTEREST AROUSED
② PRESENTATION
LEARNING
KNOWS THE JOB
③ APPLICATION
DOING
DOES THE JOB
④ TEST
MASTERY CHECKED
GAINING SKILL UNDER SUPERVISION
The Allen FOUR-STEP LESSON

B-20 Lesson Plan Sheet (Assignment Sheet)

LESSON PLAN SHEET

Title ______________________________ Date ______________

Objectives:

Step I Preparation:

Step II Presentation

Topic or Steps	Key Points

Step III Application

Step IV Testing

Tools, Equipment, Supplies and References

Revisions:

B-21 Job Breakdown Sheet - (Manipulative)

JOB BREAKDOWN SHEET No. 2

JOB Teaching Manipulative Lessons OPERATION Teach the Lesson

IMPORTANT STEP	KEY POINT
Step: A logical segment of the operation, which when completed, advances the work.	Key point: The key to doing the step quickly, correctly, safely and accurately.
1. Prepare the students	1. Tell the WHAT and WHY of the lesson. Put them at ease. Know where they are. (Find out what they know or remember from previous lessons.) Position them. (Hearing, seeing, size of student, etc.) Develop interest. Get attention.
2. Present the Lesson	2. Tell, show, illustrate, question. Give it one step at a time. Do it with humble "class". Do it the safe way. Be sure they know. Demonstrate polish, (but don't be too, too perfect).
3. Apply the Lesson	3. Have them show and tell. Ask questions - spontaneously though prepared. Offer encouragement. Coach Be sure he knows - question out the bluffers. Check understanding and retention.
4. Follow-up	4. Put him on his own. Check frequently. Designate to whom they go for help. Know your standards and apply them. Encourage questions.
5. Clean up and put away	5. Leave shop or classroom in the best of order. Dismissal by instructor, not the bell.
6. Review lesson plan and measure your success.	6. Evaluate content and technique. Correct weaknesses made evident. Note on lesson plan and revise NOW while fresh in your mind.

7 Start all over again for tomorrow.

IMPORTANT STEPS AND KEY POINTS

What is An "Important Step"?

-- An important step is that "center" of the operation in which something actually happens in furthering the operation itself.

For example:

"Take hold of the wing nut" is NOT a step

"Screw down wing nut" IS a step

"Adjust the tension" is the IMPORTANT STEP. Adjustment of the tension is fundamental to the operation at this point and is what actually happens when the wing nut is screwed down.

-- These breakdowns do NOT go into hair-splitting details. They are SIMPLE, COMMON SENSE analyses of the important steps in "putting over" a job.

What is a "Key Point"?

-- A large portion of every job is easy and can be done by almost anyone in a few hours or days.

-- It is 5 to 10 percent of the total that requires real skill and takes time to learn.

-- "Key Point" is the term for whatever is the "key" to the "right doing" of a step.

-- Key points cover (in order of their importance):

1. Factors that "make or break the job".
2. Hazards (in many jobs these rank first)
3. Pointers that make the job easier to do - "knack", "trick", "feel", "special timing", "bit of special information".

-- Key points do not cover every conceivable detail that should be watched or that might go wrong.

-- Knowing what key points are and how to pick them out quickly is perhaps the most important single thing in Job Instruction.

Example of "Key Points"

-- FEEL - When putting a micrometer on a piece of stock, the key point is "how tight", a matter of "feel".

-- KNACK - When riveting, it is important to know when to remove the pneumatic riveter. The "key" to this point is to listen to the riveting. The sound will change when the pieces are solidly together.

-- TIMING AND PLACING OF HEAT - When welding there are, among others, two key points. (1) apply the flame ahead of the weld and (2) get the metal to the right temperature by observing the color and behavior of the metal.

-- HAZARD - When using a knife, a key point is to "cut away from you". When lifting a load with an overhead crane, a key point is to pull the chains or cables up taut, then hesitate for a moment to check the hitches before lifting the load.

-- SPECIAL MOTION - On some kinds of electrical wiring, the key point is to attach the identified negative wire to the tinned screw and the positive wire to the brass screw.

-- KNACK IN JUDGING SOUND - In mines, the strength and safety of the roof is determined by tapping the roof with a steel ban. Judging by the sound as the bar strikes the roof is the key point in determining the safety of the mine roof.

B-23 Job Sheet Format - Assignment Sheet

JOB SHEET

JOB. NO.__________

JOB TITLE:

SKETCH OR DRAWING:

MATERIALS:

TOOLS AND EQUIPMENT:

PROCEDURE:

B-24 Job Plan Sheet Format - Assignment Sheet

Student's Name________________________________

JOB PLAN SHEET

Job Plan No.________

JOB PLAN TITLE:

SKETCH OR DRAWING:

MATERIALS:

TOOLS AND EQUIPMENT:

PROCEDURE:

Estimated time________hrs.

Actual time_______hrs.

____
Approved by Instructor

B-25 Job Breakdown Sheet (Related Lesson)

JOB BREAKDOWN SHEET No. 3

JOB Teaching Related Lesson OPERATION Plan the Lesson

IMPORTANT STEPS	KEY POINTS
Step: A logical segment of the operation, which when completed, advances the work.	Key point: The key to doing the step quickly, correctly, safely and accurately.
1. List the title of the lesson	1. Clear, concise, and timely.
2. List objectives of lesson	2. Realistic, observable, and measurable.
3. List teaching aids	
4. Think through Step I	4. Write down means you will use to create and develop interest. Tell WHAT and WHY of the lesson. Tie it in with course plans.
5. Develop Step II	5. Arrange proper sequence. Anticipate your students' interest span. Identify and frame questions. Vary your methods - avoid getting into a rut. Include intermediate summaries. Use occupational terms. Plan transition to Step III
6. Plan for Step III	6. Provide for practice. Prepare information and assignment sheets. Have ample problems or questions. Reflect for ingenious methods of application.
7. Determine extent of Step IV	7. Test not necessary in every lesson. Devise methods you will use to test. Assign with adequate explanation. Summarize, on your lesson plan.
8. Rehearse your lesson	8. Appearance, poise, confidence, voice, pronunciation, weasel words, and mannerisms.

Planning a DAILY LESSON PLAN - RELATED - 1 period

STEP A Collect all assigned work - Required assignment material

STEP B Review previous lesson
1. Quiz: 1, 2 or 3 questions
2. Blackboard drill
3. Outline lesson
4. Question and answer period

STEP C Re-teach if necessary

STEP D Teach New Material -- limited to material

STEP E Assignment - - 1. Class study
    a. Problems worked
    b. Outlines developed
    c. Sketches made
    d. Procedures developed

2. Outside study
    a. Read assigned pages
    b. Preview next days lesson

STEP F Supervised study period -

1. Class study assignments

    a. required production

Planning a DAILY LESSON PLAN - RELATED - 2nd period

STEP A Develop a new area of teaching
Build on shop problems
Discuss and demonstrate student problems

LESSON PLAN #

- Unit #28
- Text

TOPIC: LOCATING HOLES FOR DRILLING FLAT PIECES

OBJECTIVES:
1. To develop a technique in reading a blue print.
2. To develop a technique in locating a hole for drilling.

INTRODUCTION

1. Job looks simple
2. Feel is important
3. Sound of drill
4. Appearance of chips
5. Lubrication
6. Safety clamping

MATERIALS AND TOOLS

1. Drawing
2. Layout equipment
   Square, Scriber, Bluing
   Punch, Hammer
3. Drill
4. Lubricant

STEPS	KEY POINTS	PRESENTATION
1. Reading drawing for location of drilled hole	1. What to look for a. Size of drill b. Type of drill c. Depth of hole d. Unusal location e. Type of material f. How hole is finished 1. Reamed 2. Bored 3. Counterbored 4. Countersunk 5. Spot faced 6. Tapped	1. Use following to demonstrate location and size of hole a. Regular blue prints for whole class b. Drawing on board c. Film strip d. Overhead projector e. Drawing or print in book
2. Layout	1. Prepare Surface a. Machine surface - bluing b. Unfinish surface - chalked	1. Demonstrate if not performed before
	2. Layout intersecting lines a. Use of square b. Use of rules c. Use of scriber	2. Demonstrate how to layout intersecting lines - use point projection-Demonstrate use of scriber against rule or square

STEPS	KEY POINTS	PRESENTATION
	3. Mark Location Point a. Exact location b. Light c. Slant d. Safety	3. Demonstrate use of prick punch
3. Center Punch Hole	1. Size and style of punch 2. Depth of hole 3. Tapping of punch 4. Off center hole 5. Safety	1. Show different sizes and styles of punchs 2. Discuss safety 3. Demonstrate how held 4. Correcting off center holds 5. Depth of hole

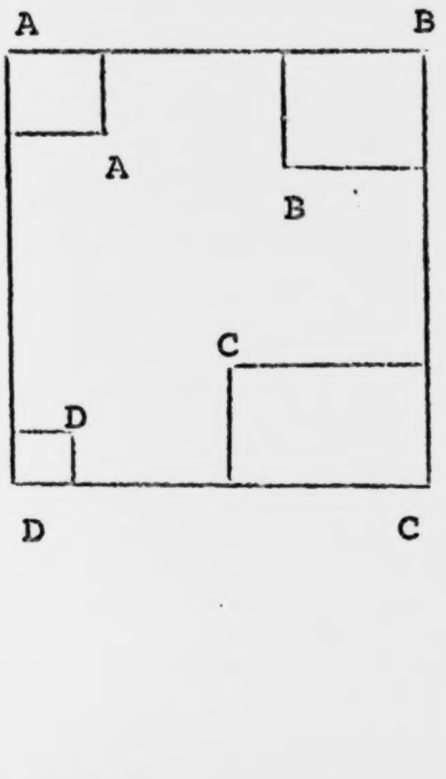
ASSIGNMENT

1. Read Unit #29 on - Holding Devices and Drilling Holes
2. Notebook - Develop job sheet on layout for this lesson

RELATED STUDY - SUPERVISED

3. Layout following on paper - provide 8½ x 11 paper

Locate Holes
at
a. 2 1/2 x 2 1/2
b. 3 3/4 x 3 7/8
c. 4 15/16 x 3 3/8
d. 34/16 x 27/16



B-29 Sample Lesson Plan - Related - General

INSTRUCTOR Ted Fait

RELATED General

Subject: Mortgages

Aim : To develop enough interest and present enough knowledge for a student to purchase a home.

Aids : Real Estate agent, Banker

References:

I. Preparation:

A large number of you will want to own your home someday. This project will take more money than you can save before you make this purchase. There is a way to accomplish your goal though. This goal can be reached by securing a mortgage on the property you wish to own. There is more mortgage banking done in the United States than anywhere else in the rest of the world. This is because of the large expanse of land. There was a day when we had chattel mortgages but they are now obsolete. This type of loan is now known as a security agreement on personal property under the new code.

II. Presentation:

TOPICS	KEY WORD
1. Mortgage	1. Loans are only made on improved land.
	2. Real estate with buildings.
	3. More difficult to get loan on unimproved farm land.

TOPICS	KEY WORD
2. Down Payment	2. Equity on property is 20% conventional loan.
3. Types of Mortgages	3. Conventional - 20% equity
	3. G. I. Loan - low interest
	3. F.H.A. - can't pay off mortgage ahead of time.
4. Easier loan to get	4. Higher loan on home with good resale value.
	4. Less money loaned on farm.
	4. Lower loan on home in area that would be hard to sell in case of default on loan.
5. Where to get home loan.	5. Savings and Loan Associations.
	5. Regular bank.
	5. Avoid personal loan companies.
6. Rates of interest	6. Larger cities 7% to 7½%
	6. Smaller cities an excellent risk may get loan for 6½%

III. Application:

Each student is to talk to a real estate agent and secure the selling price of the home he would want to buy. He is to go to the bank where the family account is and ask the banker the procedure for securing a loan and the equity necessary to make the purchase.

IV. Test:

1. Why would a banker lend more money on a home purchased in Shaker Heights than he would on the same type home in Cleveland?
2. List three types of mortgages.
3. What institution would be the most likely to lend you money to purchase a home?
4. What does equity mean?
5. Why would a bank lend money at 7% on one mortgage and demand 7½% from another individual?

B-30 Check Sheet for Practice Teaching

CHECK SHEET FOR PRACTICE TEACHING No. ____

NAME OF THE OPERATION ______________________ INSTRUCTOR ______________

OBJECTIVE ____

A. EVIDENCE OF PLANNING YES NO REMARKS

1. Did he appear to have everything planned?
2. Was workplace in order?

B. THE FOUR STEPS

Step I, Preparation

1. Did instructor find out what group knew of operation?
2. Did he build sufficient interest?
3. Was group arranged for instruction?

Step II, Presentation

1. One important step at a time?
2. Did steps stand out clearly?
3. Were key points stressed?
4. Clear and complete? Patient?

Step III, Application

1. Did learner do the operation?
2. Did instructor correct errors?
3. Did he provide for practice?
4. Did he have learner explain?
5. Was the operation learned?

Step IV, Test

1. Could learner do it unaided?
2. Was indication made of later checks?

B-31 Types of Questions

HELP FOR YOUR DISCUSSION PERIODS

TYPES OF QUESTIONS: Several types of questions may be used to pace class discussion. The types and their uses include:

1. LEADING QUESTIONS - "Do you think Americans should go without in order to help Europe?" These are useful in getting opinions from members of the group which in turn, draw other members into the discussion.

2. FACTUAL - Why? Where? When? Who? How? This type helps to bring out needed information.

3. ALTERNATIVE - Yes or no. This is useful in drawing our unresponsive members. Such a question may be followed by "Why?"

4. AMBIGUOUS - A question with more than one meaning. "Will our aid help Europe?" Use for arousing discussion.

5. CONTROVERSIAL - Questions with many possible answers. Will draw out the opinions of many members of the group.

6. PROVOCATIVE - Rubs members of the group the wrong way. "Don't you think we ought to let Europeans get themselves out of trouble?" Or "Do you think our aid will keep Europe out of communist hands?" This type of question is guaranteed to get a reaction.

HANDLING INDIVIDUALS: Every discussion group has difficult members who hamper the discussion or make the work of the leader difficult. Here are some suggestions for handling a few of the well known types:

1. TALKS TOO MUCH - Ask him a very difficult question or questions. Cut across his talk with a summarizing statement.

2. QUICK AND HELPFUL - Gives right answers too fast. Suggest the desirability of other opinions. Use him for summarizing. If too eager, pass question on to others by name.

3. RAMBLER - When he stops for breath, thank him. If there is no breathing space, ask him what part of the question he is discussing.

4. ARGUER - Try to win him over by finding some good reasons for agreeing with some points. Pretend not to hear him. If nothing else works, try to talk to him or offer to clear up differences later.

5. OFF THE BEAM - "Interesting, but could you hold it until later?"

6. OBSTINATE - Disagrees, doesn't see the point. Try to get others to correct him. If nothing works, offer to see him after the meeting.

7. POOR TALKER - Poor voice, poor choice of words - ideas may be good. Help him: rephrase the idea in your own words. If necessary, twist the idea to make better sense. Protect him from ridicule.

8. DEFINITELY WRONG - Contrary to the trend of group thought, Say "Well, that's one way of looking at it."

RULES ON ORAL QUESTIONING

The following rules on oral questioning will aid the instructor in using questions effectively as a teaching device:

1. Repeat questions for purposes of clarification, not to clear up misunderstanding due to inattention.
2. Ask questions that can be answered; avoid catch questions.
3. Insist on individual responses to direct questions.
4. Use direct method to strengthen discipline.
5. Use direct method to stimulate thinking.
6. Use overhead method to speed up the lesson.
7. Never ask questions in rotations.
8. Call on all learners with reasonable frequency.
9. Fit questions to the individual if possible.
10. If possible, questions should be short.
11. Use yes and no questions sparingly.
12. Be sure that rules governing questions and answers are understood.
13. Use questions to determine individual differences.
14. Questions should have a definite purpose or purposes:
    - (a) To obtain information
    - (b) To develop the lesson
    - (c) To obtain attention
    - (d) To stimulate thinking
    - (e) To test learning and teaching
15. Ask questions in natural conversational tone.
16. Allow ample time for learner to reply.
17. Repeat the learner's answer only when there is something to be gained by this repetition.
18. Frame all your questions in clear and concise language.
19. Discourage bluffing by wording your questions so that a definite answer is required.

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THE TECHNIQUE OF QUESTIONING

Questions play such a big part of any discussion class that perhaps we ought to take a little time, at this point, to discuss them with you.

There is a knack in knowing how to put questions to groups so as to get them to think. Remember, questions are not used to provide class members an opportunity to recite their lessons as they were back in the old days. Today we use questions:

1. To arouse interest.
2. To direct the thinking of members.
3. To discover individual weaknesses and to correct them.
4. To determine the individual's understanding of the instructor's presentation and any assignments which are made.
5. To secure the attention of inattentive members.
6. To test the effectiveness of the instruction and teaching techniques.

In asking your question you naturally want to stimulate the individual to think, and then answer. You will want all the class "on its toes." The best way to do this is to state your question, pause, and then call upon a member of the group. If you know your class, pick out an individual and call him by name.

Be sure to distribute your questions equitably among class members. Nothing is more discouraging than to have only the superior individuals answer all of the questions. Give everybody a chance. Have a check-list handy if you need it; place a mark after the name of each member questioned. Never repeat questions for the benefit of inattentive

When your questions are answered make sure the answer is heard by other class members. Try and get members of the group in the habit of speaking to the class, rather than to you. If the individual answering the question starts to talk "around the point", politely but firmly, bring him "back on the track." Compliment and encourage members who have furnished a logical answer, or who have given a great deal of thought to the question. Don't keep saying, "all right"; say instead, "that's a good point", "very good", or "exactly", etc.

When framing questions remember these points about a good question:

1. A good question has a definite purpose. Merely asking, "are there any questions?" seldom gets a good discussion started. Tie in your question with some phase of your presentation.

2. A good question is clearly and concisely stated so that it is understood by all of the members of the group. Try to avoid big words and technical terms that have not been defined in your presentation.

3. A good question should be built around only one idea. Avoid asking two questions in one.

4. A good question is carefully phrased so as to get a definite answer, don't permit bluffing. Instead of asking, "Why is 'suggestion selling' important"? ask, "How many different advantages of using 'suggestion selling' can you list?" Discourage guessing. Don't ask questions that can be answered "yes" or "no".

USE OF QUESTIONS

The conference question is the indispensable tool of the conference leader. It is the key to discussion. There is a wrong and a right way to use the question in a conference.

"QUIZ" VS. "CONFERENCE"QUESTIONS

A typical "quiz" question is so phrased that it assumes that a person has studied the subject....for example...

"Name the correct steps in handling an employee grievance."

A person must be completely familiar with his subject, and must have given it thought and consideration to be able to answer.

A conference question however begins at the "beginning" of the process of forming or arriving at a conclusion. It might begin:

"What is a grievance? Can anyone explain what they understand by it?"

"Is the subject of grievances important to us?"

"Why is it important, and how important is it?"

TYPES OF QUESTIONS

The kinds of questions that are helpful in conducting a conference fall into certain categories.....

	EXAMPLE
1. Ask for a definition	"Who can define "coordination?"
2. Ask for an experience	"What experience have you had along this line?" "Can you give me an experience showing how you have handled this kind of complaint?"
3. Ask for an opinion	"What do you think of that, Jim?" "What do you think is the right way to handle such a situation?".
4. Ask for information	"How many complaints have you had in your department?" "How many accidents were there?" "Of the tool breakages, what was the cost for the year?"

B-34 How to Use Oral Questioning 100 of each
and Discussions

HOW TO USE ORAL QUESTIONING AND DISCUSSION

1. Purposes of oral questioning.

The question and answer method is frequently used in teaching class and shop work. The instructor's ability to use this method effectively is one of the prerequisites of good teaching. This technique may be used to advantage for many purposes:

- a. To discover interests, abilities, and knowledge already possessed by students
- b. To arouse interest and direct the attention of students to the lesson
- c. To stimulate discussion and keep it on the subject
- d. To review and summarize important points in the lesson
- e. To assist students in planning their work and analyzing their problems
- f. To test the student's knowledge and to check the effectiveness of the instructor

2. Insist that all students speak so they can be heard.

An instructor should insist that students speak loud enough to be heard by everyone in the class. Unless everyone can hear clearly, interest lags. Students should be told to "speak up" immediately if inaudible to any person in the class.

3. Use correct grammar.

Every instructor should use correct grammar and strive to improve his command of English so that he may be better understood and also set a proper example for his students.

4. Use simple words.

A good instructor uses common words that can be readily understood. He does not talk over the heads of his students or fail to explain words that may not be clear to them.

5. Keep on the subject; do not wander.

A difficulty often found in the discussion method is the tendency to get off the subject. Often students ask questions and make remarks which lead the discussion to foreign topics. The instructor should actively guide the discussions to keep them on the subject. Other topics undoubtedly are interesting, but may not conform to course objectives.

6. Keep questions in proper relation.

The instructor should ask questions for a definite purpose and according to a definite plan. These should be included in the lesson plan to assure that questions will be asked at the proper time and in proper relation to preceding and following questions.

7. See that questions are pertinent and thought provoking.

Questions that can be answered "yes" or "no" are of little value. All questions should be pertinent and stimulate thought on the part of the students before they answer. Use "how," "why," and "what" when asking questions.

8. Ask questions which can be clearly understood and interpreted in only one way.

Questions should be stated so that the students clearly understand them and know exactly what is expected in the answer. Do not ask tricky questions that may be interpreted in several ways. The students will usually challenge these questions or provide the wrong response, thus wasting time and making it necessary for the instructor to restate the question.

9. Ask questions - pause; then name a student to answer.

Direct the question to the entire group, pause until the students have had time to collect their thoughts and then call upon a student to answer. This procedure stimulates all to think, because no one knows who will be asked to supply the answer. If the instructor calls upon an individual first, then asks him the question, the rest of the class may sit idle and not think about the correct answer, because the responsibility for the answer is already known.

10. Repeat questions only for clarification, not for inattention.

Questions should always be restated if they are not clearly understood. Repeating questions for the benefit of inattentive students, however, should not be practiced, as it develops an attitude of indifference on the part of the students.

11. Ask questions that can be answered.

All questions asked should stimulate thinking and discussion, but should not be too difficult for students to answer. If no one can answer the question, the instructor will have to restate it or ask an easier one.

12. Insist on individual responses to questions.

An instructor should explain at the start of the course the approved procedures for students to follow in answering questions. One practice is to advise the class that no hands are to be raised in response to questions, and no answers are to be given until the instructor selects a student to do so.

13. See that questions are never asked in rotation.
    Questioning students in rotation according to alphabetical names or seating arrangement reduces the mental participation of the class. This procedure indicates the student who will be called upon to answer the question and encourages inactivity on the part of other students who know they will not be tested until their turn comes.

14. Call on students with reasonable frequence.
    Calling on all students with reasonable frequence enables the instructor to test their understanding and assist him to become better acquainted with individuals in the group.

15.. Fit questions to individuals if possible.
    The good instructor will try to know the members of the class so that he can ask less difficult questions for the slower students and more difficult questions for the brighter ones. This procedure makes the question method more effective.

16. Allow students to answer from their seats.
    Some students have difficulty thinking on their feet and are embarrassed when asked to rise and speak before the group. Some will falsely state that they do not know the answer, rather than stand and supply it. Answering on one's feet provides good practice in public speaking and permits the entire class to see the one who speaks. However, the aim of the questions and discussion method is to secure reactions from all students, and this can be better accomplished when they are permitted to speak from their seats. This may not apply in military schools.

17. Encourage all students to participate.
    The good instructor will encourage his students to ask reasonable questions for clarification at any time. He will give adequate consideration to all questions asked and will never evade a question If he is unable to answer a question, he will not hesitate to say, "I don't know; but I shall try to find the answer for you." He will allow a reasonable time for students to think before they answer, and will not permit a few students to monopolize the discussion. He will call on students whose minds are obviously wandering to bring them back on the subject and stimulate their thinking about the lesson. He will not embarrass students with speech impediments.

18. See that clues to answers are not given by facial expression or voice.
    If an instructor makes efficient use of the questioning method he will not indicate the answers by gestures or leading words, and the like. Clues reduce student thinking.

ASSIGNMENT SHEET

Assignment Sheet No. ________
Use same No. as in course of study

Insert title of assignment

INTRODUCTORY INFORMATION:	Short, concise statement for the purpose of motivating the student to complete the assignment.
ASSIGNED READINGS:	Listing of all printed matter to be used by the student in completing the assignment. List the facts of publication--author, title, publisher, date--and page numbers covering assignment.
QUESTIONS, PROBLEMS OR ACTIVITY:	The assignment should adequately cover the specific subject in this assignment sheet. Questions and problems should be stated clearly and concisely. The student should clearly understand what he is to do.

DISADVANTAGES OF INSTRUCTION SHEETS

1. Students try to avoid reading the sheets by asking other students or copying their work, thus creating unnecessary interference and disturbance.
2. The work required in the preparation and administration of instruction sheets offsets the advantages they offer.
3. Many students do not like to read and will flounder around by trial and error rather than read instructions.
4. Some people do not learn readily from the printed page and require other techniques.
5. Instruction sheets reduce the social value of the regular class relationship by furthering individual instruction.
6. The sheets restrict initiative and ingenuity by providing such detailed information that the learner becomes a slave to directions, unable to work on his own.
7. The student, knowing that an operation sheet will be forthcoming after a demonstration, will tend to become inattentive and disinterested in the lesson.
8. The teacher may rely too much on the instruction sheets. They are meant to supplement other methods of teaching and are not to replace the teacher.
9. Instruction sheets must be well-written and thoughtfully prepared. Poorly written or poorly reproduced instruction sheets are worse than none at all.
10. Good instruction sheets are difficult to write and expensive to reproduce in small quantities. For this reason, once they are completed, they are seldom revised or brought up-to-date.

HOW TO USE INSTRUCTION SHEET

The instruction sheet, like any other teaching device, works satisfactorily only when the teacher uses it intelligently and wants it to work. The teacher who thinks it only necessary to pass out sheets, and then await results, is in for a staggering disappointmen In the first place, students must be taught how to use written instructions just as they must be taught how to do any operation, they just don't take to instruction sheets like a duck takes to water. These sheets are primarily to aid the teacher in doing a better job of teaching and their need is much less keenly felt by the boy or girl. Secondly, these sheets do not relieve the instructor of any teaching responsibility whatever; they merely make his instruction more flexible and effective by supplementing it, not supplanting it.

Instruction sheets are usually given to the students one at a time as the need arises. In some cases they are returned to the instructor after the need has been met; in others the learner is allowed to retain them with instructions to organize and bind the sheets into a handbook for future reference. The method followed will be determined by the policy of the school and the availability of the instruction material.

In teaching with the aid of instruction sheets the teacher follows a plan similar to the following:

1. There must be a clear explanation to the student of what i expected of him. He must have all necessary materials, tools, and equipment available for completion of the work. The teacher should go over the essential elements of the work with the student before he begins to be sure the student knows what he is to do, where special emphasis must b placed, and what standards of workmanship are required.

This may need to be done with the whole class, small groups within the class, or with individuals.

2. The student should be required to analyze his job carefully and to plan his work before he starts the job. He must know what materials and tools he will need, where to get them, and when and how to use them. Students are usually in a hurry to start doing something and it takes a skillful teacher to see that the planning and organizing stages of the work are followed through.
3. The teacher may need to give a demonstration before the students begin.
4. It is the teacher's responsibility to see that the student carries out his job correctly and efficiently. This requires constant checking and alertness on the part of the teacher.
5. When the job is finished, the teacher must carefully check and evaluate the student's work. The teacher now has a golden opportunity to promote learning because student interest and concern for success is at its highest. If the teacher is quick to praise good work and is sympathetically constructive in his criticisms, the student will be ready to try even harder on the next job.

B-38 Information Sheet Format

INFORMATION SHEET

Information Sheet No.________

TITLE:

INFORMATION:

B-39 Assignment Sheet Format

ASSIGNMENT SHEET

Assignment Sheet No.______

TITLE:

INTRODUCTORY
INFORMATION:

ASSIGNED
READINGS:

QUESTIONS, PROBLEMS
OR ACTIVITY:

DEVELOPING APPROPRIATE STUDENT CONDUCT

PRACTICAL SUGGESTIONS FOR DISCIPLINE FOR EMERGENCY SITUATIONS

The problems of discipline are symptomatic of fundamental deficiencies in the teacher. When the right classroom and schoolroom conditions exist there are few opportunities for inattention and misbehavior. It is commonly recognized that GOOD DISCIPLINE IS A PRODUCT OF GOOD TEACHING, and is not an end to be sought in itself.

The suggestions here given constitute a kit ot tools to use in meeting emergency situations. A wise application of these principles will delay the day of complete failure, and give you the necessary time to seek some of the causes that contribute to existing conditions A boil on the face is symptomatic of a more fundamental trouble but often it needs immediate attention in order that the work of the day may proceed.

The teacher with disciplinary trouble should not be deceived into believing that the following principles strike at the fundamentals involved in disciplinary problems. Those basic matters may involve the setting of more desirable objectives, better motivation, the organization of the school so as to involve greater participation of pupils, the personality of the teacher and the like.

1. Learn to "ride your eye" through the eyes of your students. In the early days you cannot turn you back very much on the class to discuss maps, write on the blackboard and the like. In the early weeks you cannot sit much. It is of considerable advantage to the teacher to stand where he can see clearly what it is that each pupil is doing. Try to hear all and see all that is happening in the class all the time.

2. Learn to call upon those pupils whose attention is wavering. It is an easy trick to bring back into the fold those who are about to be lost through daydreaming, interest in neighbors, "monkeying", etc.

3. Study carefully the seating of the students. It seems to be true that certain students have a bad effect upon each other. A boy who is ordinarily a quiet student when seated with the wrong neighbor may start the mischievous spirit in both.

4. Learn the names of pupils quickly. It is helpful to have a task or a variety of tasks ready the first day as the students come into the room.

5. Be Business-like. This means that you must have an interesting program of worthwhile material for each hour. In keeping people busy provide the greatest amount of variety consistent with good organization.

6. As the foundation of your disciplinary measures use the standards of the group. You may need to overlook many undesirable things. Any effort at punishment will be futile if it opposes the standards of the group, e. g. you cannot eliminate cheating from your grade or your school until the group opinion is against cheating. A corollary of this principle is that you must act in the interest of the group; never for yourself.

7. Make every effort to avoid all suggestions of criticism, disorganization, and anger before the group. Make your suggestions in the private conference.

8. If any member of the group actually obstructs the work, the treatment of the case should be calm, dignified, and firm. If the administration approves, the member should be expected to leave the room, preferably to sit alone in a place provided for such a purpose. At the first opportunity the offense should be dealt with in a private conference.

9. Use special occasions to carry over the idea to the pupils that you are interested in them as human beings. You may wish to attend the basketball games. Many teachers do not recognize what a golden opportunity they have when some of their pupils are sick. In such a case a kindly message or a telephone call will work wonders.

10. Stop the little things. The snow ball rolling down hill gathers momentum and size. In like manner many disciplinary problems are insignificant in the early stages. Good sense is required and some other means than a "don't."

The following additional items have been suggested. Do they have any relation to your situation?

11. Do not use sarcasm.

12. Do not expect tattling.

13. Have no favorites.

14. Do not insist on apologies.

15. Do not make threats.

16. When not certain what to do, don't do anything.

17. At the end of each day of the first week list the weak spots of the room.

18. Watch your voice. Hold the pitch down to a normal conversation level.

19. Begin each class promptly with a suggestion of vigor.

20. Have a system of holding every member of the class responsible for all that takes place during the class period.

21. When discussing discipline be as impersonal as a physician.

22. Try to handle your own problems but do not allow them to grow mor complex before calling for assistance.

23. Remember that a sense of humor and a smile are very important tools in the kit.

24. For every disciplinary case that is closed be sure that the student understands that his record is once more clear and that there is to be no memory of the offense.

25. Avoid baby talk and excerpts from college experiences.

26. In the long run a group may be conquered by courtesy.

27. Avoid too difficult assignments during the early weeks.

28. There should be no punishment of the whole class for the fault of a few.

29. Find out the practices of the school with respect in the manner in which to address pupils.

30. Remember that a find edge to your scholarhsip with respect to subject matter is likely to win the respect of the key people in every class.

31. There are a few absolutes in educational procedures. The challen is to find the one best way to solve each individual problem case

THE OLD VERSUS THE NEW IN DISCIPLINE

The following summary indicates some of the major differences between the older type of school discipline and the newer standards of discipline.

CHARACTERISTICS OF THE OLD	CHARACTERISTICS OF THE NEW
1. Repressions of the interests and enthusiasms of pupils.	1. Direction of interests and enthusiasms of the pupils.
2. Control of pupils through an appeal of fear.	2. Control of pupils through their desire for happiness.
3. Emphasis on strict rules and regulations made by the teachers.	3. Emphasis on standards of conduct understood by pupils.
4. Emphasis on quiet, order and passiveness.	4. Emphasis on industry, cooperation, and helpfulness.
5. Emphasis on penalties and punishments for misconduct.	5. Emphasis on the rewards for good conduct.
6. Emphasis on dictatorial and arbitrary control of pupils by teacher.	6. Emphasis on pupil-teacher relationships.

A CHECK LIST OF ERRORS

The following list includes many items which are apt to contribut to the problem of discipline. Student teachers would do well to check themselves against this list.

Many observers have noticed that:

1. A lesson is often rendered ineffectual because the teacher plunges into the work before getting the attention of each member of the class.
2. The teacher sits at the desk all the time, thus giving the class the cue to settle back comfortably and indifferently.
3. In case one pupil makes a mistake the teacher explains the correction directly to him instead of to all the class.
4. The teacher does the explaining and answering of questions instead of encouraging the class to feel a responsibility for all that goes on during the period.

5. The teacher speaks in a low, unconvincing tone which gives the impression that nothing of importance is happening.

6. Pupils are often seated in straight rows when the tables could easily be arranged in the shape of a horseshoe.

7. Teachers by their posture and informal attitude lead pupils to "take their ease."

8. Teachers allow themselves to be "side-tracked" by irrelevant questions..

9. The teacher is often tied to the textbook, even to a single text

10. Teachers parrot the pupils' answers all too frequently.

11. Teachers frequently use words and constructions far above the pupils' comprehension.

12. Both simple and difficult concepts are left before they have bee made entirely clear.

13. Teachers recite the content, which the pupils are supposed to ha prepared upon, thus lowering class interest.

14. Little idiosyncrasies and mannerisms are developed which detrac from the work at hand. Avoid the colloquial "O.K.", "Right", ar find good substitutes of the constant "All Right".

15. Pupils are permitted to *recite* individually to the teacher inste of *discussing* questions with the whole class.

16. Perspective as to importance of materials and activities is ofte lacking.

17. In assigning work, teachers sometimes say, "I want *you* to do so and so for me tomorrow." Try to develop a "we" feeling.

18. The lesson is sometimes ended in a sarcastic tone -- "You didn' study your lesson well." "Did you have more important things to do?" "I hope the next time I teach that you will have a better lesson."

19. Teachers often have little to contribute for the purposes of illustration and stimulation.

20. Statements of pupils are replied to by a monotonous "all right.'

21. Teachers talk too rapidly or too slowly. This practice gives the impression that the teacher is nervous, and the slower pupils are unable to follow the train of thought.

22. Too much thought is given to teaching and too little to learning.

23. Teachers call on a particular pupil before stating the question.

24. Many attempt to teach before learning to write legibly.

25. Preparation of lessons and collection of teaching materials are often neglected until the last minute.

26. As the recitation proceeds, the teacher frequently fails to note the number of indifferent pupils.

27. Materials placed on the blackboard by the teacher during a recitation period are often ineffectual on account of carelessness in writing or drawing.

28. Teachers frequently fail to take account of the physical comfort of pupils: temperature, ventilation, lighting, seating.

29. Teachers often forget that they teach much by their personal appearance, tone of voice, attitude and the like.

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3. Mays, Arthur B. and Casberg, Carl H., _School-Shop Administration_, Milwaukee: The Bruce Publishing Company, 1950.

4. Struck, F. Theodore, _Creative Teaching_, New York: John Wiley and Sons, Inc., 1938.

THE POOR SCHOLAR'S SOLILOQUY

No, I'm not very good in school. This is my second year in the seventh grade and I'm bigger and taller than the other kids. They like me all right, though, even if I don't say much in the school room, because outside I can tell them how to do a lot of things. They tag me around and that sort of makes up for what goes on in school.

I don't know why the teachers don't like me. They never have very much. Seems like they don't think you know anything unless you can name the book it comes out of. I've got a lot of books in my own room at home ..... books like Popular Science, Mechanical Encyclopedia, and the Sears' catalogue, but I don't very often just sit down and read them like they make us do in school. I use my books when I want to find something out, like whenever Mom buys stuff second hand I look it up in Sears' first and tell her if she's getting stung or not. I can use the index in a hurry to find the things I want.

In school, though, we've got to learn whatever is in the books and I just can't memorize the stuff. Last year I stayed after school every night for two weeks trying to learn the names of the presidents. Of course, I knew some of them like Washington and Jefferson and Lincoln, but there must have been thirty altogether and I never did get them straight. I'm not too sorry though because the kids who learned the Presidents had to turn right around and learn the Vice Presidents. I'm taking seventh grade over but our teacher this year isn't so interested in the names of the Presidents. She has us trying to learn the names of all the great inventors. The kids seem interested.

I guess I just can't remember names in history. Anyway, this year, I've been trying to learn about trucks because my uncle owns three and he says I can drive one when I'm sixteen. I already know the horsepower and number of forward and backward speeds of twenty-six American trucks, some of the Diesel's, and I can spot each make a long way off. It's funny how that Diesel works. I started to tell my teacher about it last Wednesday in science class when the pump we were using to make a vacuum in a bell jar got hot, but she said she didn't see what a Diesel engine had to do with our experiment on air pressure, so I just kept still. The kids seemed interested though. I took four of them around to my uncle's garage after school and we saw the mechanic, Gus, tearing a big Diesel truck down. Boy, does he know his stuff.

I'm not very good in Geography either. They call it economic geography this year. We've been studying the imports and exports of Chile all week, but I couldn't tell you what they are. Maybe the reason is I had to miss school yesterday because my uncle took me and his big trailer truck downstate about two hundred miles and we brought almost ten tons of stock to the Chicago Market.

He had told me where we were going, and I had to figure out the mileage. He didn't do anything but drive and turn where I told him to. Was that fun. I sat with a map in my lap and told him to turn south or southeast or some other direction. He made seven stops and drove over five hundred miles round trip. I'm figuring now what his oil cost and also the wear and tear on the truck -- he calls it depreciation--so we'll know how we made out.

I can even write out all the bills and send letters to the farmers about what their pigs and beef cattle brought at the stockyards. I only made three mistakes in seventeen letters last time, my aunt said,--all commas. She's been through high school and reads them over. I wish I could write school themes that way. The last one I had to write was on "What a Daffodil Thinks of Spring", and I just couldn't get going.

I don't do very well in school in arithmetic either. Seems I just can't keep my mind on the problems. We had one the other day like this;

> If a 57 foot telephone pole falls across the cement highway so that 17 1/6 feet extend from one side and 14 9/17 feet from the other, how wide is the highway?

That seemed to me like an awfully silly way to get the width of a highway. I didn't even try to answer it because it didn't say whether the pole had fallen straight across or not.

Even in shop I don't get very good grades. All of us kids made a broom holder and a bookend this term, and mine was sloppy. I just couldn't get interested. Mom doesn't use a broom any more with her new vacuum cleaner, and all our books are in a bookcase with glass doors in the parlor. Anyway, I wanted to make an end gate for uncle's trailer but the shop teachers said that meant using metal and wood both and I'd have to learn how to work with wood first. I didn't see why but I kept still and made a tie rack in school and the tail gate after school in my uncle's garage. He said I saved him $10.

Civics is hard for me, too. I've been staying after school trying to learn the "Articles of Confederation" for almost a week because the teacher said we wouldn't be good citizens unless we did. I really tried, because I do want to be a good citizen. I did hate to stay after school, though, because a bunch of boys from the south end of town have been cleaning up the old lot across from Taylor's Machine Shop to make a playground out of it for the little kids from the Methodist Home. I made a jungle gym from old pipe and the guys made me Grand Mogul to keep the playground going. We raised enough money collecting scrap this month to build a wire fence around the lot.

Dad says I can quit school when I'm fifteen and I'm sort of anxious to because there are a lot of things I want to learn how to do, and as my uncle says, I'm not getting any younger.

B-43 Converting Raw Scores to Letter Grades

University of Toledo
Dept. of Vocational Education

No. ________

INFORMATION SHEET

Converting Raw Scores To Letter Grades

Converting raw scores on quizzes, examinations and assignments to letter grades is a task which must be performed by most T & I teachers. Several methods have been devised, but most rely upon statistical methods or arbitrary dividing points. The technique detailed below eliminates these disadvantages and allows the teacher to decide whether A's and/or F's should be given. This technique has been adapted from the Douglas[1] method.

Steps of Conversion

Example	
64 (H)	
63	
62	A
61	
60	
59	
58	
57	B
56	
55	
54	
53	
52	
51	
50	
49	
48	
47	C
46	
45	
44	
43	
42	
41	
40	
39	
38	
37	D
36	
35	
34	
33	
32	F
31	
30 (L)	

1. Beginning with the highest raw score made, list each possible score. Stop listing with the lowest score made.

2. Find the range (r) by subtracting the lowest score made (L) from the highest score made (H) and adding one (1) to this remainder.

$$r = (H - L) + 1$$

Ex.---
$$r = (64 - 30) + 1$$
$$r = 34 + 1$$
$$r = 35$$

3. Divide the highest score made (H) into the lowest score made (L) to determine how many letter grades should be given. Use the following table:

Fraction Obtained ($\frac{L}{H}$)	No. of Letter Grades
.95 - up	1
.90 - .94	2
.70 - .89	3
.50 - .69	4
.49 - less	5

Example; $\frac{30}{64}$ = .46, so five (5) letter grades will be given.

4. Divide the number of grades to be given, plus one, into the range (r) to determine the number of scores to be assigned each letter grade.

$$\frac{r}{\text{number of grades} + 1}$$ = number of scores to be assigned each letter grade

Example: $\frac{35}{6}$ = 5 with a remainder of 5

This means that five scores will be assigned to each grade except the middle grade where twice the number (10) plus the remainder (5) will be assigned (15).

5. Begin at the top of the list of raw scores and count down the number of scores as determined in Step 4.
   a. Count down five scores and draw a line between 59 and 60. This separates A's and B's.
   b. Count down five more scores and draw a line between 54 and 55. This separates B's and C's.
   c. Count down fifteen (twice the number (5) for the other grades plus the remainder of 5) and draw a line between 39 and 40. This separates the C's and D's.
   d. Count down five more scores and draw a line between 34 and 35. This separates the D's and F's.

6. In this example, the following conversion is indicated:

Raw Score	Letter Grade
60-64	A
55-59	B
40-54	C
35-39	D
30-34	F

NOTE: If less than five letter grades are indicated in step 3, the teacher must decide which letter grades will not be given.

---

[1] Leonard H. Douglas, The Secondary Teacher At Work. (Boston: D. C. Heath and Co., 1967), p. 90.

B-45 Institute Final Assignment

FINAL ASSIGNMENT
EPDA WORKSHOP, 1969

I. Two Week Plan
  A. Daily teaching guide
    1. Titles of manipulative lessons
    2. Titles of related lessons
    3. Written plan for first day of school

II. Lesson Plans
  A. Written lesson plan for each lesson title in your two-week plan.

III. Progress Chart
  A. Fill-in operations to be taught and jobs to be assigned for your first two weeks of school.

IV. Class Organization Plan
  A. The plan that you will follow in assigning pupils to:
    1. Work stations
    2. Clean up areas
    3. Extra-work assignments

A carbon copy of all the above assignments is due to to handed to your teacher educator before you leave the workshop August 22, 1969. The progress chart may be 8-1/2 x 11 instead of the large actual chart.

B-47 Typical Seminar Agenda

KENT STATE UNIVERSITY

AGENDA
SEPTEMBER SEMINAR

7:00 p.m. - 7:30 p.m.	Carl Gorman	Welcome, Announcements, Future Dates, etc. "Teacher Educator Looks at Discipline"
7:30 p.m. - 7:45 p.m.	Ted Fait	"Administration Looks at Discipline"
7:45 - 8:00 p.m.	William Sutton	"A Teacher Looks at Discipline"
8:00 p.m. - 8:10 p.m.	BREAK	
8:10 p.m. - 9:00 p.m.	William Sutton	5 Min. Reports of Discipline Cases (Group Participation)
9:00 p.m. - 9:10 p.m.	BREAK	
9:10 p.m. - 10:00 p.m.	Ted Fait	Buzz Groups - To Discuss Current Major Problems

B-47 Typical Seminar Agenda

UNIVERSITY OF TOLEDO

OCTOBER SEMINAR

Evaluation and Grading Systems

7:00 - 7:35 Information Session
- A. Six Week Grade
  - 1. Factors Involved
    - a) Related class
      - Tests and Quizzes
      - Hand-In Work
      - Class Participation and/or Response
      - Attitude toward related
    - b) Lab
      - Performance
      - Work Habits
      - Attitude toward lab work
      - Demerit system

7:35 - 8:10
- 2. System to be used
  - a) Letter A B C D E
  - b) Percentage
  - c) Numerical
- 3. Converting to School Requirement
  - Definite formula or system
    - Explainable
    - Valid (defensible)
    - Administration approval

8:10 - 8:20 BREAK

8:20 - 8:35 What to do with test scores:
- 1. Raw scores
- 2. Percentages

8:35 - 8:50
- 3. Averages
  - Class
  - Individual
- 4. Ranking
- 5. Curve grading

8:50 - 9:00 BREAK

9:00 - 10:00 Group Discussion - Problems in evaluating

B-47 Typical Seminar Agenda

UNIVERSITY OF CINCINNATI
DEPARTMENT OF VOCATIONAL EDUCATION

Patterson Cooperative High School	September 23, 1969
Dayton, Ohio	7:00-10:00 P.M.

AGENDA

I. Discipline

   A. Problems
   B. Methods used in correcting problems
   C. Evaluation of techniques
   D. Discussion of school policies

II. General Information

   A. Changes in schedule
   B. Text books and tools (shop)
   C. Progress Charts
   D. Visitation - dates and procedure

III. Lesson Plans

   A. Use
   B. Construction
   C. Format (pass out)
   D. Sample lesson

IV. Next Meeting

   A. V.I.C.A.
   B. Assignment from A-2 ?

V. Adjourn - Drive Safely

D. A. Garrison

D.A.G./cdm
9/23/69 - 4:59 P.M.

B-47 Typical Seminar Agenda

THE OHIO STATE UNIVERSITY
COLLEGE OF EDUCATION
1945 NORTH HIGH STREET
COLUMBUS, OHIO 43210

FACULTY OF VOCATIONAL-TECHNICAL EDUCATION
1885 NEIL AVENUE
122 TOWNSHEND HALL

(614) 293-5037

October 3, 1969

MEMORANDUM

TO: All Ohio State University E.P.D.A. Instructors

FROM: James A. Provost, Teacher Educator

SUBJECT: October Monthly Seminar

DATE: October 23, 1969 - 7:00 P.M.

PLACE: Eastland Joint Vocational School
4465 Hamilton Road
Groveport, Ohio

Discussion Topics:
I. Instruction Sheets (Job, Operation)
II. Progress Charts

Reading Assignment:
I. Struck p. 195
II. Rose pp. 149-163
III. Kidd & Leighbody pp. 71-80 pp. 171-176
IV. Fryklund pp. 87-90

Directions: Eastland Joint Vocational School is located 1/2 mile south of intersection of Route 33.
From the North take Route 71 to 70 and exit on Hamilton Road.
From the East take Route 70 and exit on Hamilton Road.
From the South take Route 33 and exit on Hamilton Road.

Enclosure: Liability policy application from A.V.A.

C-1 In-Service Observation Rating Forms

CHECK SHEET FOR APPRAISAL OF INSTRUCTION

Demonstrator____________________ Date______________ Checked____________

Did instructor appear to have adequately prepared the following:

1. Necessary equipment and teaching aids? ------------------ Yes No
2. Plan for conducting the instruction? --------------------- Yes No

Consider how well instructor followed the Four Basic Steps:

PREPARATION

1. Did instructor put learner at ease? --------------------- Yes No
2. Did he link up with learner's experience? ---------------- Yes No
3. Did he build up learner's interest? ---------------------- Yes No
4. Was a clear statement made of what was to be learned? ---- Yes No

PRESENTATION

1. Did instructor make proper use of:
    - Questioning? -- Yes No
    - Telling (explaining)? ---------------------------------- Yes No
    - Showing (demonstration)? ---------------------------- Yes No
    - Illustrating (exhibits or visual aids)? ---------------- Yes No
2. Did he present instruction in orderly manner, step by step? Yes No
3. Did he present instruction too fast? --------------------- Yes No
4. Did he keep instruction at learner's level? ---------------- Yes No
5. Did he present too much at once before letting learner respond? --- Yes No
6. Did he hold learner's full interest? ---------------------- Yes No
7. Did he make presentation complete? --------------------- Yes No
8. Was the content reasonable in scope? -------------------- Yes No

9. Did he emphasize workmanship cautions? ---------------- Yes No

10. Did he emphasize safety precautions? ------------------- Yes No

11. Did he clearly state checking or achievement standards expected of learner? ---------------------------------- Yes No

12. Did he close the presentation properly? ---------------- Yes No

APPLICATION

1. Did he provide for adequate practice by learner? --------- Yes No

2. Did he properly correct learner's errors? --------------- Yes No

3. Did he try to develop the learner's judgment? ----------- Yes No

4. Did he emphasize improvement in learning? -------------- Yes No

CHECKING

1. Did he check learner at each state of procedure? ---------- Yes No

2. Did he supervise too closely? --------------------------- Yes No

3. Did he have learner repeat job without assistance? -------- Yes No

4. Did he make sure that learner had really mastered the lesson correctly? -- Yes No

5. Did he commend learner for accomplishment? ------------ Yes No

What were the weak features of the demonstration?

What were the strong features of it?

Suggestions

C-1 In-Service Observation Rating Forms

TEACHER EDUCATION
In-Service Report

Classroom and/or Shop Visitation

____ / ____ / ____ / ____ / ____ / ____
Instructor / Teaching Area / School / Date / Time / Teacher Educator

---

I. CONDITION OF (CLASSROOM) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
(SHOP) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Safety Hazard ☐ ____ Comments ____

____

____

II. TEACHER'S DESK, BULLETIN BOARD ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Pencil Sharpener ☐ Reference Materials ☐ Students' Desk or Table
☐ ____ Comments ____

____

____

III. TEACHER'S OPENING OF (CLASS) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
(SHOP) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Beginning on Time ☐ Checking Role ☐ Students Enter at Random
☐ Lack of Organization ☐ ____ Comments ____

____

____

IV. STUDENT CONTROL AND MANAGEMENT ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Lack of Firmness ☐ Easily Led by Students Off the Subject
☐ Too Demanding ☐ Students Leave or Enter Room or Shop at Random
☐ ____ Comments ____

____

____

V. LESSON PLANS
(PLANNING, ORGANIZATION, FLEXIBILITY) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ No Evidence of Lesson Plans ☐ ____ Comments ____

____

____

VI. QUESTIONING TECHNIQUE ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Answers Own Questions ☐ Impatient ☐ Questions are Vague
☐ Does - Does Not Give Credit ☐ ____ Comments ____

____

____

VII. ATTITUDE ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Difficulty in Explanation ☐ Teaching Over Students' Head
☐ Lacks Sense of Humor ☐ Atmosphere Too Tense ☐ ____
Comments ____

____

VIII. TEACHING METHOD ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Friendly and Firm ☐ Lecture Only ☐ Variety of Approach
☐ Does Not Use Instruction Sheets ☐ Teacher Lacks Instructional Materials
☐ ____ Comments ____

C-1 In-Service Observation Rating Forms

WEEK OF: ______________________

DATE TEACHER SCHOOL	TIME	OBSERVATION & DISCUSSION	ASSIGNMENTS
MONDAY			
TUESDAY			

WEEK OF: ______________________

DATE TEACHER SCHOOL	TIME	OBSERVATION & DISCUSSION	ASSIGNMENTS
WEDNESDAY			
THURSDAY			

C-1 In-Service Observation Rating Forms

EVALUATION OF INSTRUCTION

The aim of this evaluation is to aid the new teacher in improving his instruction. The following scale may be used to rate each item listed:

A - Excellent

B - Good

C - Fair

D - Material called for was omitted

I. How well did the instructor:

1. Use necessary equipment and teaching aids.
2. Follow his plan for conducting the lesson.
3. Make the lesson relevant to the learners experience.
4. Build up the learners interest.
5. State the aims of the lesson.
6. Utilize the "Telling" technique.
7. Utilize the "Showing" technique.
8. Utilize the "Questioning" technique.
9. Utilize the "Illustrating" technique.
10. Present the material at the proper rate.
11. Keep the instruction at the learners level.
12. Hold the learners interest.
13. Complete the presentation.
14. Emphasize workmanship cautions.
15. Emphasize safety precautions.
16. Clearly state what checks or tests would be made on the pupil work.
17. Provide for adequate practice by the learner.
18. Provide for the learner to do the operation under supervision
19. Seek questions from the learner from time to time.
20. Close the presentation properly.

II. Comments:

1. What were the weak features of the lesson?
2. What were the strong features of the lesson?

C-1 In-Service Observation Rating Forms

UNIVERSITY OF CINCINNATI
DEPARTMENT OF VOCATIONAL EDUCATION

TEACHER EDUCATION ACTIVITIES OF DON GARRISON

Visitation Schedule

School ____________________

Date and Time of Arrival ____________________

Acknowledged: Superintendent ____________________

Principal ____________________

Supervisor ____________________

Instructor ____________________

Other ____________________

Instructor Contacts

Name of Instructor ____________________

Classroom Visitation ☐
Comments:

Shop Visitation ☐
Comments:

Evaluation of Visit

Time of Departure ____________

C-1 In-Service Observation Rating Forms

SHOP OBSERVATION SHEET

INSTRUCTOR DATE SHOP

ITEM	GOOD	FAIR	WEAK	N.A.	COMMENTS
SHOP OPENING					
1. Entrance procedure					
2. Attendance procedure					
3. Preparation for work					
a. Clothes changing facility					
b. Orderly					
DEMONSTRATION					
1. Preparation					
2. Organization					
3. Coverage					
4. Student response					
a. Attention					
b. Cooperation					
c. Understanding					
5. Student performance					
SHOP MANAGEMENT & ORGANIZATION					
1. Student assignment					
a. Orderly					
b. Instruction sheets					
2. Student performance					
a. Interest					
b. Conduct					
3. Student personnel system					
a. Posted					
b. Working					
4. Progress chart					
5. Toolroom					
a. Organization					
b. Method of securing tools					
c. Method of securing parts					
d. Method of securing materials					
6. Instructor supervision					
a. Involvement					
b. Individual help					
SAFETY					
1. Safe practices					
2. Eye protection					
3 Proper clothing					
PHYSICAL CONDITIONS					
1 Heat, light, ventilation					
2. Working area organization					
SHOP CLOSING					
1 Shop clean up and inspection					
2. Student clean up					
3 Dismissal procedure					

EVALUATOR

O-S.U. TEACHER EDUCATION OBSERVATION

C-1 In-Service Observation Rating Forms

Instructor / Teaching Area / School / Date / Time / Teacher Educator

1. CONDITION OF (CLASSROOM) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
(SHOP) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Safety Hazard ☐________ Comments________

2. TEACHER'S OPENING OF (CLASS) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
(SHOP) ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Beginning on Time ☐ Checking Roll ☐ Students Enter at Random Times
☐ Lack of Organization ☐________ Comments________

3. STUDENT CONTROL AND MANAGEMENT ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Lack of Firmness ☐ Easily Diverted from Subject
☐ Too Demanding ☐ Students Leave or Enter Room or Shop at Random
☐________ Comments________

4. LESSON PLANS - (PLANNING, ORGANIZATION, FLEXIBILITY)
☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ No Evidence of Lesson Plans
☐________ Comments________

5. QUESTIONING TECHNIQUE ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Answers Own Questions ☐ Impatient ☐ Questions are Vague
☐ Does - Does not Commend Student Response ☐________ Comments________

6. ATTITUDE OF TEACHER ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Lacks Enthusiasm ☐ Lacks Professionalism ☐ Lacks Sense of Humor
☐ Friendly and Firm ☐ Poor Student-Teacher Rapport ☐________
Comments________

7. TEACHING METHOD ☐ Excellent ☐ Good ☐ Fair ☐ Poor
☐ Variety of Approach ☐ Articulation ☐ Does Not Use Instruction Sheets
☐ Teacher Lacks Instructional Materials ☐________
Comments________

8. TEACHER EDUCATION ASSIGNMENT
Unit Assignment________Topic No. Completed________ ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Unit Assignment________Topic Assigned________ Due Date________
Comments________

C-2 Sample of Study Guide

STUDY GUIDE C-6

INDIVIDUALIZED INSTRUCTION IN THE RELATED CLASSROOM

Teaching Methods and Techniques in Trade and Industrial Education

Trade and Industrial Education Service
Teacher Development
Division of Vocational Education
Department of Education
State of Ohio

Issued by

Edited and distributed by the
Trade and Industrial Education
Instructional Materials Laboratory
The Ohio State University
College of Education
Columbus 10, Ohio
1958

Reprint - 1961
Reprint - 1964
Reprint - 1966
Reprint - 1968

Preface

Teacher education is one of the services rendered on a cooperative basis by the Trade and Industrial Education Service, Division of Vocational Education, State Department of Education, and cooperating Universities. It consists of individualized and group teacher training designed specifically for trade and industrial teachers who have had no teacher education, or whose teacher training has been in some field other than trade and industrial education.

The Ohio Plan for teacher training calls for periodic visitations and conferences by the teacher educator with the new teacher. The teacher's strong and weak points are observed during these visitations and assignments of various study guides are correspondingly made. In reality, teacher training in Ohio attempts to "tailor make" a program to fit the individual teacher's needs.

Teacher education assignments will vary in length, but in general specific assignment sheets will take approximately two weeks to complete when utilizing good study procedures. Proper study procedures are important if one is to master the teacher education assignments. Such items as having a place to study, setting a definite time for study and attempting to follow a definite procedure when reading and working out assignment sheets and problems are important factors which will need to be discussed and decided on early in the program.

The importance of a proper attitude toward the teacher training program cannot be overstressed. The job of teaching is a difficult one and the mastery of this skill does not come easy. Teacher training is a must for all new trade and industrial education teachers and it should be looked upon as a definite aid in becoming a "master" of the profession.

This material is an outgrowth of materials which were prepared and duplicated in 1948-1949. Acknowledgment is therefore extended to those persons who originally assisted in its preparation.

The revision and development committee for the new study guides consisted of Messrs. C. J. Cotrell, Teacher Educator, The Ohio State University; C. A. Felker, Department Head, University of Toledo; G. G. McMahon, Teacher Educator, Kent State University; Dr. D. H. Price, Department Head, University of Cincinnati; and C. J. Schaefer, Assistant State Supervisor, Columbus, Ohio

The manuscripts were reviewed before publication by C. W. Nichols, Teacher Educator, University of Cincinnati; Dr. R. M. Reese, Department Head, The Ohio State University; C. P. Sherck, Teacher Educator, Kent State University; C. E. Stiner, Department Head, Kent State University; and G. E. Williams, Teacher Educator, Marion, Ohio. Dr. Merle E. Strong, Instructional Materials Consultant, assisted in editing and publication of the materials.

Harry F. Davis, State Supervisor
Trade and Industrial Education Services

Introduction

Previous assignments have cited the benefits that can be derived from methods of individualized instruction in the related classroom; nevertheless, there have been very few suggestions given concerning details of this type of teaching. This study guide will provide the instructor with some practical suggestions for teaching related information by means of an individual method. Some new techniques will be shown for utilization. These will help the instructor with some of the problems that many be encountered. The entire process, from teaching students how to study, to the evaluation of an individualized lesson, is covered in this study guide.

In order to obtain the optimum benefit from this study guide, the assignments should be completed in the order in which they appear.

Prerequisites for the work in this study guide should include the following instruction:

1. The four-step method of instruction.
2. Individual Differences. (Assignment #1 of Study Guide C-5)
3. Individualized Instruction in the Related Classroom. (Assignment #3 of Study Guide C-3)

SPECIFIC GOALS

The following study guide has been designed:

1. To acquaint an instructor with a study technique which he can teach his students.

2. To help the instructor understand the importance of introducing an individualized lesson.

3. To provide the instructor with some practical suggestions for supervising study.

4. To offer the instructor some suggestions for evaluating an individualized lesson.

5. To offer an instructor a means of providing individualized instruction when the usual instructional aids (assignment sheets) are not available.

6. To help an instructor acquire an appreciation for individual instruction as a worthy method of instruction for the related classroom.

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4. Evaluating Lessons 7

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Study Guide C-6
Individualized Instruction in the Related Classroom
Assignment #1

Name ______________ Due __________ Grade ________

INTRODUCING A LESSON

Introductory Statement:

Do you know how to introduce an individualized related lesson? This assignment will be concerned with the answer for this question, and it will involve the instructor in the study of student motivation as it applies to the process of individualized instruction in the related classroom.

References:

Appendix "A," Applying a Study Technique in Individualized Instruction, pp. 9-10.

Questions and Problems:

1. What procedure should the instructor use in introducing an assignment?
2. How many pages of reference material are recommended for an assignment?
3. Why is it important to consider the number of pages of reference material in an assignment?
4. What kinds of information should be given the student when an assignment is introduced?
5. How are individual assignments chosen for a student; that is, on what basis are they determined?
6. Illustrate the basis of need for three individual assignments from the occupation that you are teaching.
7. Why should the instructor ask a student why he wants to study a certain topic?
8. Explain why an introduction should be given for an individual assignment or lesson.
9. What part does interest play in a learning situation?
10. Why check the page numbers of the reference books for an assignment?

11. What kind of assignments, in terms of time, tend to be the most successful?

12. What does the length of a lesson have to do with correlation?

13. Plan the introduction of at least two individual assignments and discuss them with your teacher-educator.

14. What step in the four-step pattern of instruction is being supplied by the proper introduction of a lesson?

Study Guide C-6
Individualized Instruction in the Related Classroom
Assignment #2

Name __________ Due __________ Grade __________

STUDYING -- OUTLINING

Introductory Statement:

Many students will need help in the process of carrying out the reading and study involved in an assignment. A typical related assignment sheet with questions to be answered, after the study of prescribed reference materials, seems simple enough; however, the study of the prescribed reference presents some problems. What is done when the student tries to answer the questions before studying the reference material? How does one get him to study? How should he study? How is the situation handled when the student tries to get the instructor to give the answers to the questions on an assignment when the instructor knows that the student has neither read nor studied the assignment?

Through the experience offered by this assignment, the instructor will learn a technique of study which he can teach. This is a tried and tested means of overcoming some of the above mentioned problems.

References:

Gerken, C. d'A.,	Study Your Way Through School, pp. 17-24.
Appendix "A,"	Applying a Study Technique in Individualized Instruction, p. 9.

Questions and Problems:

1. Prepare a lesson plan for teaching the self-recitation text-outlining technique to your student.
2. List the steps in the self-recitation text-outlining technique.
3. How is the text read for content and how are definite questions asked which will be used in the outline?
4. Try studying pages 17-24 of Study Your Way Through School, using the new outlining technique. Then go over the outline with the teacher-educator.
5. Why use the self-recitation text-outlining technique with related assignments?
6. List some of the advantages of this question and answer outlining.

7. What kind of difficulty can an instructor expect his students to experience with this new study technique?

8. What should the student do after he has completed the outlining of an assignment?

9. List what the instructor should look for to detect the lack of good study technique.

Study Guide C-6
Individualized Instruction in the Related Classroom
Assignment #3

Name ____________ Due ____________ Grade ______

SUPERVISING STUDY

Introductory Statement:

This assignment has been designed to help the instructor with the problem of supervision of the study connected with an individualized assignment. It will pertain especially to the application of the self-recitation text-outlining technique of study.

References:

Appendix "A," Applying a Study Technique in Individualized Instruction, pp. 11-13.

Questions and Problems:

1. What kind of conduct is desirable to foster good conditions for related study?
2. What factors will contribute to desirable classroom discipline?
3. What does individual work imply in terms of the activity of each student?
4. Why should the instructor observe the student's work occasionally?
5. Where should individual help be administered in the room, if a very small amount of time is involved?'
6. What step or steps in the four-step method of instruction are supplied by the studying and self-recitation?
7. Why is it important that the instructor create the least amount of distraction while offering individual assistance?
8. In what kind of a situation would a conference room adjoining the classroom be desirable?
9. How can the instructor assist his students while they are working on individual assignments?
10. Plan with your teacher-educator to provide for some individualized instructional activity which he can observe and discuss with you.
11. What should the student do with his outline after he has completed it?

Study Guide C-6
Individualized Instruction in the Related Classroom
Assignment #4

Name ____________________ Due __________ Grade ________

EVALUATING LESSONS

Introductory Statement:

In the process of providing individualized instruction, as in group instruction, the instructor will be concerned with some means of evaluating the lesson. This assignment will provide the instructor with some suggestions to be used in this process and also some practice in the evaluation of individualized lessons.

References:

Appendix "A," Applying a Study Technique in Individualized Instruction, p. 14.

Questions and Problems:

1. Describe how a completed assignment can be evaluated if an assignment sheet is available.
2. What are some possible weaknesses to guard against in the oral questioning evaluation technique?
3. The weaknesses cited in question 2 above can be overcome by what means?
4. Explain what the instructor should do after a student has indicated that he has completed the outlining and study of his assignment.
5. When should the instructor let the students look at the questions on an assignment sheet?
6. The application of the self-recitation text-outlining technique, in the manner prescribed, has been referred to as a method of individualized instruction; therefore, explain how this method applies to the four-step pattern of instruction. Describe what is done in each step.
7. Plan to evaluate several individual assignments. Arrange for the teacher-educator to observe your technique for evaluating an individual lesson.
8. Examine the results of the evaluation of several individual lessons with your teacher-educator.

6/7

9. Explain the procedure for making an evaluation of an individual lesson when no assignment sheet is available.

10. What precautions should be observed when the study technique is used in a situation where no assignment sheet is available?

APPENDIX A

Applying a Study Technique in Individualized Instruction

Introduction:

Do your students know how to study? Your reply may be, "I assume that they do." Unfortunately, we instructors like to assume that our students know much more than they actually do. We learn this only after careful analysis of student failures in many teaching situations. The story is much different, however, in individualized instruction in vocational education since the observant instructor will be made aware of this fact shortly after he has used his first assignment sheets in related technology. If students haven't learned how to study by the time they become juniors, the situation isn't entirely hopeless. Take the situation in stride and teach them a study technique which they can utilize effectively. They may balk at first, but after they have used a good study technique for a while, they will probably be grateful and even ask when someone didn't teach them how to study before.

In case you may be wondering how to detect the lack of good study technique, some of the common symptoms are: (1) The students will try to answer the questions on the assignment sheet before they have read the prescribed reference material. (2) Students will try to get the instructor to answer the questions rather than merely interpret them. (3) Students complain of having to do too much research for the answers to questions rather than reading and studying for meaning before attempting answers. (4) The percentage of correct answers on a given assignment may be very low.

Introducing an Individual Lesson

Provided that the instructor has an assignment sheet for the topic to be studied, the procedure should follow the usual four-step method of instruction with some adaptations for the individual method. An assignment could be chosen on the basis of need and interest. In other words, the instructor would observe or anticipate the need for the assignment which results from the nature of the student's job or project in the shop. In other words, the instructor would be concerned with trying to correlate the related technology with the shop activity.

Another example of the need for individual assignments could be cited in the cooperative training program. In this case, the on-the-job instructor may inform the instructor-coordinator, during a visit, that the student has need for certain related information as a result of having met certain difficulties on the job or as the result of certain job experiences that are planned for the student in the near future. Here again, would be the opportunity to give the student an assignment which could be closely related with his shop activity.

To further illustrate these two similar situations let us use a typical situation from the auto mechanics trade. The student has need for, or will in the near future have need for, the study of an assingment in related technology class concerning carburetor service since he has been involved in a carburetor service job or will be involved in this kind of activity in the very near future.

An individual related assignment may also be given on the basis of student interest alone. In this kind of a situation, it becomes the instructor's responsibility to determine the reason for the interest. If the student wants to study a certain assignment, it is good practice for the instructor to ask why he wants to study this assignment. Asking this question may seem like an attempt to stifle student motivation; however, there are some students who might be looking for the shortest or easiest assignments in the study guide.

Some students might be interested in a particular assignment because of a hobby problem. There could be such a situation in the diversified cooperative program in which a student in photography would want to study an assignment in auto mechanics because he wanted to find out what was wrong with his "hot rod." If the student can tell the instructor why he wants to study a particular assignment, then his reasoning must be sound in terms of those needs pertaining to his program of instruction, not those of his hobby interests. If the student wants to work on an assignment pertaining to his vocational course, this may be considered worthwhile. Situations of this nature can result in good learning because of the student's interest and self-motivation. Student desires and expressed interests cannot always be accepted due to the fact that the shop instructor may be demanding that one student study some topic more closely correlated with his needs. This brings us to the point of preparing the student for the assignment which usually takes a very skillful conference. Above all else, the student should understand why he needs to study a certain assignment and how it fits into the mastery of the trade being pursued. The student must be motivated before he starts work on an assignment so the results will be satisfactory. One has often heard the expression, "you can lead a horse to water but you can't make him drink." To paraphrase this, "a teacher can give a student an assignment but can't make him learn," even by using a study assignment. If the horse is thirsty or if you can cause him to be thirsty, it is possible to make him drink, which is the analogy upon which to base the proper introduction of a lesson. It would be well to remember that interest is a very significant factor in learning and that interest incites a desire to learn.

Verifying Reference Pages

An essential part of introducing the lesson or giving the assignment would be concerned with checking the reference pages to be read pertaining to the topic. One good reason for doing this is to make certain that the student studies the correct pages. The pages referred to in the assignment sheet are very often based on a different edition of the reference than the one available; therefore, page numbers may vary considerably.

If proper regard is given to the attention span of the learner, the assignment probably will not involve such a broad topic that it will cover more than ten pages of reference material. It has been discovered that shorter assignments tend to be more successful. The length of time from one reward or grade to the next is not so great and the student experiences a sense of greater progress. Short assignments also provide for better correlation of the related information with the shop or "on-the-job" training.

Supervision of Study

When the student is underway with his work on the assignment, there are some conditions that must exist or else he will not be able to obtain maximum benefit from his study. Assuming normal classroom conditions such as heating, ventilation, lighting, etc., are satisfactory, problems may evolve around the conduct of the students themselves. A classroom study atmosphere must be maintained so that it will be conducive to the concentration necessary for this kind of activity. It should be remembered that this is individual work and each student may be studying a different topic. In the event the instructor is wondering how quiet the students should be, we could say that the most desirable conditions exist somewhere between too noisy and too quiet. This seems to be a rather facetious answer but it is something that will have to be determined after you find out how students in a particular group are going to discipline themselves. We should assume at this point that each student in the group has been properly motivated and has enough interest in his study of a topic that he will not want to be disturbed by his neighbors.

While the students are busy at work studying, it would be a good idea for the instructor to occasionally circulate among them. This would make it possible for him to closely observe the nature of each student's effort and also make himself readily available if his assistance should be required. Individual assistance that would only require a short period of time could be rendered at the student's table in a way to create the least amount of distraction for the others. If the help would involve several minutes, the instructor should invite the student to the conference room, if one is available, or to his desk where this assistance will not interfere with the work of the rest of the students. The important thing to remember is that this individual help should be given in a manner that will create a minimum of distraction.

This study of the reference material, specified in the assignment sheet, can be regarded as the presentation step of the individual lesson, if we were to apply the four-step method to this situation. This self-presentation is a vastly different kind of presentation from that to which the instructor has been accuntomed. This comparison is being made in order that the instructor can realize the method of study is extremely important to the outcome of the individual's lesson or assignment. The instructor should assist the students in following a technique of study as well as helping them interpret difficult reading, etc.

The self-recitation text-outlining technique is being advocated because it offers a system for study while, at the same time, it provides tangible evidence of study. The value of this technique lies in the opportunity that it offers the student to think about, write about, recall, and review important items of information.

No attempt is being made to reproduce or outline the study technique in this appendix material. It has been assumed that the reader is already familiar with the technique as the result of completing assignment #2 of this study guide. If, however, the reader is not acquainted with this particular technique of study, pages 18-20 of Study Your Way Through School, C. d'A. Gerken should be carefully read at this time.

Teacher educators in Trade and Industrial Education have great concern for the manner in which the various parts of the four-step pattern of instruction are treated when they are applied to group instruction. Individualized instruction deserves the same kind of detailed attention; hence, the attempt to further explain and emphasize some of the essential factors of this method of instruction. The importance of a good study technique has been stressed and a particular technique has been suggested. The application of this technique of study will also be explained and illustrated.

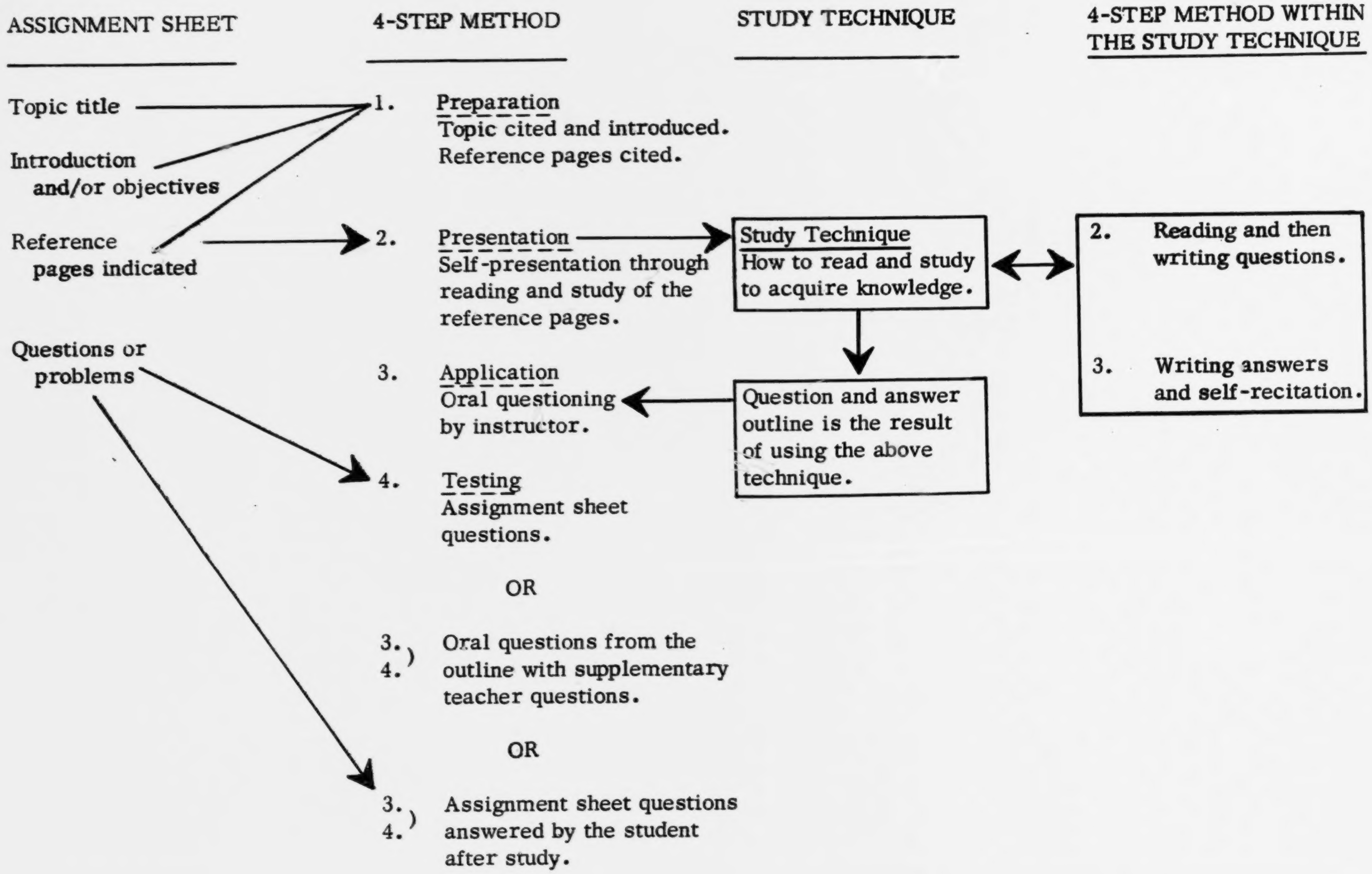
The following information and chart, Figure 1, are offered for study in order that you may see the relationship that should exist between an assignment sheet and the four-step method as it applies to individualized instruction. The relationship of the study technique to the four-step method of instruction is illustrated, also, to provide the reader with a visual aid which will indicate the place and function of the self-recitation text-outlining technique in the total picture of individualized instruction.

Although much of the remainder of this appendix material is devoted to the utilization of a particular study technique, the reader should not overlook the general information pertaining to individualized instruction which is being offered. The self-recitation text-outlining technique is being suggested; it may not be perfect in every respect but you are challenged to find a technique that is more effective. Whatever you do, don't let the students simply search for the answers to the questions on the assignment sheets. This would certainly be the last resort and the least effective technique that could be practiced.

Another way to apply the four-step method, as indicated by the chart, would be to apply it within the outlining process. Examining the study and outlining procedure in this way could, therefore, mean that the information in a section of the reading material is being presented as the study is taking place and as the questions on the section would be engaging in what could be called the application step. This presentation and application would continue through the remainder of the divisions or sections of the assigned reading until the point of self-recitation over the complete reading assignment is reached. The final self-recitation, however, may be regarded as a form of application, if the deserved amount of flexibility is given to the four-step method of instruction.

FIG. 1

THE FOUR-STEP METHOD APPLIED TO INDIVIDUALIZED INSTRUCTION


ASSIGNMENT SHEET
4-STEP METHOD
STUDY TECHNIQUE
4-STEP METHOD WITHIN THE STUDY TECHNIQUE
Topic title
Introduction and/or objectives
Reference pages indicated
Questions or problems
1. Preparation
Topic cited and introduced.
Reference pages cited.
2. Presentation
Self-presentation through reading and study of the reference pages.
3. Application
Oral questioning by instructor.
4. Testing
Assignment sheet questions.
OR
3.) 4.) Oral questions from the outline with supplementary teacher questions.
OR
3.) 4.) Assignment sheet questions answered by the student after study.
Study Technique
How to read and study to acquire knowledge.
Question and answer outline is the result of using the above technique.
2. Reading and then writing questions.
3. Writing answers and self-recitation.

NOTE: The testing does not include the possible special test which may be prepared by the teacher as a follow-up quiz, weekly or six-week test.

Evaluation of the Lesson

After the student has used his question and answer outline for self-recitation and further study of the material presented in the reference book, in accordance with the self-recitation text-outlining technique of study, he is ready for some type of testing by the instructor. This kind of testing may be regarded as a combination of application and testing if we were to refer again to the four-step method of instruction. It may also be referred to as application, depending upon the flexibility that would be allowed for the method. At this point, however, the important thing to do, if time permits, is to check the student's outline and give him an oral quiz by asking him certain selected questions from his outline. Here lies one weakness of the study technique. The student may try to get by with an outline that lacks sufficient questions to cover the material thoroughly. To guard against this weakness, the instructor should check the reading material for important meanings and points which might have been skimmed over by the student. A few oral questions on points of information taken from the book, which have been passed over unnoticed by the student, along with the other oral questions from the outline will help remedy this kind of situation. This would be about as far as the instructor could go with the lesson unless he had an assignment sheet with good questions, or had prepared a written test.

Assuming that the reading assignment for the lesson has been based on an assignment sheet which contains questions, the instructor has a natural testing device of a written nature to use after the oral questioning and discussion procedure described above has been used. To follow this procedure successfully, the student should not have access to the assignment sheet questions until he has completed the study of his question and answer outline; in fact, he should not see the questions until after the oral quiz. If the oral quiz would be omitted, the student could be given the questions from the assignment sheet as soon as he had completed his study through self-recitation with his outline. This would normally mark the completion of the lesson; however, a written test prepared by the instructor including both recall and thought questions or problems concerning a lesson or a combination of lessons would provide for ideal follow-up activity.

Individual Assignments Without Assignment Sheets

In some vocational courses there may be no assignment sheets available for the new instructor to use as an aid to individualized instruction. This presents a problem which can be solved by use of the proposed technique of study.

Sometimes the instructor will want to make assignments which involve the study of supplemental reference material such as current publications or trade magazines. He will have need for a means of checking a student's work or giving credit since there may be no other concrete evidence to prove work or study. This study technique will prove helpful in both of these difficult situations.

If individual assignments or lessons are given without the aid of an assignment sheet, extreme care should be given to the selection of the reading material assigned for study. It is very easy for the instructor to make the mistake of assigning pages of reading material which are irrelevant to the lesson; thereby, making the lesson too long. The principles of good lesson structure, particularly with regard for the number of objectives for one lesson, cannot be overstressed in connection with individualized instruction. For further explanation of the importance of objectives in lesson structure, refer to pages 10-15 of Methods of Teaching Shop and Related Subjects, by Donald M. Kidd and Gerald B. Leighbody.

BIBLIOGRAPHY

1. Gerken, C. d'A., Study Your Way Through School, Chicago: Science Research Associates, Inc., 1953.

C-2 Sample of Study Guide

STUDY GUIDE C-4

ORGANIZING AND CONDUCTING EFFECTIVE DEMONSTRATIONS

Teaching Methods And Techniques In Trade And Industrial Education

Trade and Industrial Education Service
Teacher Development
Division of Vocational Education
Department of Education
State of Ohio

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Preface

Teacher education is one of the services rendered on a cooperative basis by the Trade and Industrial Education Service, Division of Vocational Education, State Department of Education, and cooperating Universities. It consists of individualized and group teacher training designed specifically for trade and industrial teachers who have had no teacher education, or whose teacher training has been in some field other than trade and industrial education.

The Ohio Plan for teacher training calls for periodic visitations and conferences by the teacher educator with the new teacher. The teacher's strong and weak points are observed during these visitations and assignments of various study guides are correspondingly made. In reality, teacher training in Ohio attempts to "tailor make" a program to fit the individual teacher's needs.

Teacher education assignments will vary in length, but in general specific assignment sheets will take approximately two weeks to complete when utilizing good study procedures. Proper study procedures are important if one is to master the teacher education assignments. Such items as having a place to study, setting a definite time for study and attempting to follow a definite procedure when reading and working out assignment sheets and problems are important factors which will need to be discussed and decided on early in the program.

The importance of a proper attitude toward the teacher training program cannot be overstressed. The job of teaching is a difficult one and the mastery of this skill does not come easy. Teacher training is a must for all new trade and industrial education teachers and it should be looked upon as a definite aid in becoming a "master" of the profession.

This material is an outgrowth of materials which were prepared and duplicated in 1948-49. Acknowledgement is therefore extended to those persons who originally assisted in its preparation.

The revision and development committee for the new study guides consisted of C. J. Cotrell, Teacher Educator, The Ohio State University; C. A. Felker, Department Head, University of Toledo; C. W. Nichols, Teacher Educator, University of Cincinnati; C. J. Schaefer, Assistant State Supervisor, Columbus, Ohio; and Paul Sherck, Teacher Educator, Kent State University.

The manuscripts were reviewed before publication by G. G. McMahon, Teacher Educator, Kent State University; C. W. Nichols, Teacher Educator, University of Cincinnati; Dr. D. H. Price, Department Head, University of Cincinnati; Dr. R. M. Reese, Department Head, The Ohio State University; C. P. Sherck, Teacher Educator, Kent State University; C. E. Stiner, Department Head, Kent State University; and G. E. Williams, Teacher Educator, Marion, Ohio. Dr. Merle E. Strong, Instructional Materials Consultant, assisted in the editing and the publication of the materials.

Harry F. Davis, State Supervisor
Trade and Industrial Education Services

Introduction

In trade and industrial education the instructor is chosen because of certain experiences that he has in a given trade. This experience, although tremendously important in itself, does not insure that the individual can effectively teach others. Because the journeyman craftsman will usually not have had practice in teaching, it becomes necessary for him to select tools with which he may do the job. One of the tools which he will undoubtedly find most effective is the demonstration.

SPECIFIC GOALS

The following study guide has been designed:

1. To introduce the demonstration as a tool for teaching.

2. To acquaint the instructor with the importance of a properly planned demonstration.

3. To provide several situations in which the instructor will be able to practice the demonstration.

4. To help the instructor in evaluating the effectiveness of his own demonstration.

5. To help the instructor recognize when information can best be taught by a demonstration.

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Appendix 9

Outline for Organizing and Conducting Effective Demonstrations
Check List for Demonstration
Lesson Breakdown and Plan Sheet (2 copies)

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Study Guide #C-4
Organizing and Conducting Effective Demonstrations
Assignment #1

AN INTRODUCTION TO THE DEMONSTRATION METHOD

Introductory Statement:

The demonstration can be one of the most effective methods of instruction known. It can stimulate a desire on the part of the learner to duplicate what he may have observed.

The site selected for a demonstration is extremely important, since it can often determine the number of students who will be able to see and hear the demonstration.

References:

Kidd, Donald M. and Leighbody, Gerald B., Methods of Teaching Shop and Related Subjects, pp. 41-60.

Questions and Problems:

1. List ten lessons that you might teach by the demonstration method.

2. Describe how you would prepare your own shop or related classroom for one of the demonstrations which you have listed in answering question No. 1.

3. What have Kidd and Leighbody suggested in regard to the amount of subject matter to be covered in a single demonstration?

4. What do you feel is the best way in which you can learn how to use the demonstration effectively?

5. Select one demonstration that you have listed under question No. 1. How many of man's five senses can be employed in this demonstration in your shop or classroom?

6. What does Leighbody say the instructor should do in relation to the physical comfort of the class before the demonstration begins?

7. What part does questioning have in a good demonstration? Do you agree with Kidd and Leighbody regarding the use of the question during a demonstration?

8. List three reasons for practicing demonstrations in advance, even if the instructor is an experienced teacher.

Study Guide #C-4
Organizing and Conducting Effective Demonstrations
Assignment #2

PREPARATION OF A DEMONSTRATION OUTLINE

Introductory Statement:

It is imperative that a new teacher learn the value of proper planning. We all know that modern builders spend much time and effort in planning the many landmarks which appear on our landscape, such as buildings, bridges, roads, etc. The beginning teacher may not realize that good planning can bring results that are just as lasting, although not so obvious, in the lives of his students.

This particular assignment concerns planning for the demonstration.

References:

Struck, F. Theodore, Creative Teaching, pp. 348-369.

Kidd, Donald M. and Leighbody, Gerald B., Methods of Teaching Shop and Related Subjects, pp. 41-60.

Hill, W. E. and Ewing, C. H., Materials and Methods for Vocational Training, Chapter IV.

Questions and Problems:

1. Leighbody indicates that he feels a teacher should refresh himself in regard to the exact objectives of a lesson before he begins a demonstration. Do you feel that this should apply to the experienced teacher? Why? Why not?

2. How can you determine what constitutes the proper lesson for a single demonstration?

3. When constructing your demonstration outline, should you include the following points? Why?

   a. All information to be written exactly as presented?

   b. Just a few notes to indicate the direction the demonstration might take?

   c. Key points, with questions to bring out discussion?

   d. The objectives and a listing of all audio-visual supplies necessary?

4. How will you know when your demonstration outline is completed and ready for use?

5. Construct three separate demonstration outlines on the lesson breakdown and plan sheet provided. In each outline, list the key points of a lesson to be covered. List also the visual aids which may be necessary for presenting the demonstrations. Indicate in your margin the approximate time which you feel will be necessary for the presentation of each section of the demonstrations. List the points to be covered in your summary.

Study Guide #C-4
Organizing and Conducting Effective Demonstrations
Assignment #3

MAKING A SHOP DEMONSTRATION

Introductory Statement:

The shop demonstration should be the strongest single teaching tool in the trade and industrial teacher's tool box. By demonstrations he can prove that he is a master craftsman in his trade.

By a proper combination of telling and showing, he can also become a master teacher. It is extremely important that he demonstrate complete familiarity with tools, machines, and materials when making demonstrations. The practicing of demonstrations previous to the time they are presented before the class is good sound teaching technique.

References:

Kidd, Donald M. and Leighbody, Gerald B., Methods of Teaching Shop and Related Subjects, pp. 41-60.

Appendix

Questions and Problems:

1. Discuss the demonstration outlines, which you prepared in assignment #2 of this study guide, with your teacher educator. Select one of these for a shop demonstration to be presented under his observation.

2. Present the demonstration to the class while the teacher educator observes. (Make sure that he has a copy of your outline.)

3. Confer with your teacher educator following the demonstration. A comprehensive criticism that follows the upgrading Check List for Demonstrations will be provided. High spots and weaknesses will be pointed out.

4. Prepare a new demonstration outline and proceed as before, but incorporate the experience gained in your last attempt.

5. Practice the demonstration outlined in #4 above and then present it to your class. Rate yourself on the upgrading chart. Discuss this demonstration with your teacher educator during his next visit.

Study Guide #C-4
Organizing and Conducting Effective Demonstrations
Assignment #4

MAKING A CLASSROOM DEMONSTRATION

Introductory Statement:

The classroom demonstration can strongly reflect the background training and experience possessed by the teacher. It is true that equipment available can in many ways alter the extent of a given demonstration. When this is a factor, the instructor should take every measure possible to borrow or improvise equipment before proceeding. It is important that the related instructor demonstrate complete familiarity with the experimental equipment and be well informed in background technology.

References:

Kidd, Donald M. and Leighbody, Gerald B., Methods of Teaching Shop and Related Subjects, pp. 41-60.

Appendix

Questions and Problems:

1. Discuss the demonstration outlines, which you prepared in assignment #2 of this study guide, with your teacher educator. Select one of these for a classroom demonstration to be presented under his observation.

2. Present the demonstration to the class while the teacher educator observes. (Make sure he has a copy of your outline.)

3. Discuss your presentation with the teacher educator. A comprehensive criticism that follows the upgrading Check List for Demonstrations will be provided.

4. Prepare another demonstration outline and proceed as before. Try to incorporate in your new attempt the experiences gained previously.

5. Practice the demonstration outlined in #4 above and then present it to your class. Rate yourself on the upgrading chart.

   Discuss this demonstration and your self-analysis with your teacher educator during his next visit.

APPENDIX

ORGANIZING AND CONDUCTING EFFECTIVE DEMONSTRATIONS

I. Explanation of a demonstration
  A. What is a demonstration
  B. Purpose of a demonstration -- why used
  C. When to use a demonstration

II. Prerequisites of a good demonstration
  A. A thorough knowledge of the material to be presented
  B. Proper equipment that has been thoroughly checked
  C. A definite plan of procedure -- an outline
  D. Preliminary preparation
  E. A complete rehearsal

III. Organizing a group for a demonstration
  A. Effective size: sub groups
  B. Proper position of individuals for:
    1. Visibility
    2. Reasonable comfort
    3. Freedom from distractions
  C. Provide for individuals or groups not participating in the demonstration

IV. A good demonstration will include:
  A. An explanation
  B. Interwoven questions
  C. Instruction sheets
  D. Visual aids
  E. Safety instruction
  F. A discussion or question and answer period

V. The teaching steps as applied to a demonstration
  A. Preparation
  B. Presentation
  C. Application
  D. Testing

VI. The demonstration plan -- an outline
  A. Objective or aim
  B. Materials and equipment
  C. Introduction
    1. Get attention
    2. Put group in favorable attitude
    3. Present the major purpose and idea of the demonstration so that the group will want to learn
  D. The teaching points; cover the new skills

E. Assignment for the learner: specific, general

F. Checking the acquired skill or knowledge; the standard of achievement necessary

VII. Evaluating the effectiveness of a demonstration

A. Student reaction

B. Self appraisal

C. An observer's opinion

D. A suggested upgrading chart

DEMONSTRATOR ______________

DATE ______________ SCORE ______________

CHECK LIST FOR DEMONSTRATION

	1	2	3	4	5
1. Grooming	Clothing and shoes slovenly in appearance		Clothing and shoes frequently untidy; careless in appearance		Clothing and shoes neat, clean, and well-fitted
	1	2	3	4	5
2.	Hair; hands, and nails unkempt		Evidence of grooming done hurriedly or omitted in part		Hair tidy, hands and fingernails clean and well-manicured
	1	2	3	4	5
3. (for women only)	Cosmetics poorly chosen; gives artificial effect		Little consideration given to choice and application of cosmetics		Cosmetics well-chosen; applied becomingly and in moderation
	1	2	3	4	5
4. Posture	Posture awkward; slumped in appearance		Carriage too stiff or too relaxed, resulting in faulty posture		Posture erect but not tense; appearance of ease and poise
	1	2	3	4	5
5. Preparation be fore class arrives	Supplies and equipment not made ready for use before demonstration		Preliminary preparation of supplies or equipment overlooked		All supplies and equipment made ready for use before demonstration
	1	2	3	4	5
6. Use of time and effort	Inefficient use of time due to lack of preliminary planning; time consuming methods used		Time wasted because of poor plans or methods		Efficient use of time, good preliminary plan developed and good methods used

	1	2	3	4	5
7. Manipulative Skill	Works slowly; awkward manipulation		Works with average speed; manipulation lacks skill		Works quickly; dexterous, manipulation good
8. Neatness of working area	Working area in confusion; supplies, tools, and equipment in disorder		Working area in some confusion, but tools were available when needed		Orderly working area with tools and equipment in easy access
9. Care of soiled utensils (for food courses)	Waste products from food preparations remain on working area; soiled dishes not stacked		Some waste product left on working area; attempt made to stack soiled dishes		Removal of waste products from working area; soiled dishes stacked
10. Organization and presentation of material	Poorly organized; inadequate explanation of procedure during demonstration		Explanation fairly well organized but inadequate		Adequate explanation of each step during demonstration, pre sented in well-organized mann
11. Knowledge of subject	Lacks knowledge of principles underlying the thing being demonstrated		Has some knowledge of principles underlying the skill or items being demonstrated		Has thorough knowledge of principles underlying the skill or items being demonstrated
12. Diction	Has difficulty in expressing ideas		Expresses ideas fairly well by generally using good English		Has good command of English
13. Voice	Voice is disagreeable or difficult to understand		Voice is fairly pleasing and distinct		Voice is pleasing and easily understood

		1	2	3	4	5
14.	Poise	Ill at ease, worried; has nervous manners; unable to carry on a conversation		Reasonably self-contained; upset by unexpected situations; converses fairly well		Apparently at ease, self-possessed and gracious; converses easily
		1	2	3	4	5
15.	Ability to hold interest of class	Class bored		Class moderately interested		Holds attention of group throughout demonstration
		1	2	3	4	5
16.	Sanitary habits	Unsanitary; unacceptable		Just acceptable; needs improvement		Good sanitary habits; good example of sanitary standard
		1	2	3	4	5
17.	Conclusion	No conclusions of demonstration drawn; no summary given		Indefinite conclusions drawn; no summary given		Definite conclusions drawn; good summary of demonstration presented

Unit 2 -- Teaching Aid #9

LESSON BREAKDOWN AND PLAN SHEET

Location of Training

19

Date of Session

Field or Area of Training

Prepared by

STEP I -- Prepare the Learner (or Group)

Title of Lesson

STEP II -- Present the Lesson:

IMPORTANT STEPS IN THE LESSON	KEY POINTS The key points are anything in a step that might make or break the lesson, injure the learner, make the lesson easier to do or understand; "knack," "trick," or bit of special information.	DEMONSTRATION
Col. 1	Col. 2	Col. 3

- OVER -

DEMONSTRATION (Cont'd)

STEP III -- Application or Tryout:

STEP IV -- Checking, Testing and Follow-Up:

Tools, Equipment and Supplies:

IMPORTANT STEPS (Cont'd)	KEY POINTS (Cont'd)	DEMONSTRATION (Cont'd)

LESSON BREAKDOWN AND PLAN SHEET

Location of Training

19

Date of Session

Field or Area of Training

Prepared by

STEP I -- Prepare the Learner (or Group)

Title of Lesson

STEP II -- Present the Lesson:

IMPORTANT STEPS IN THE LESSON	KEY POINTS The key points are anything in a step that might make or break the lesson, injure the learner, make the lesson easier to do or understand; "knack," "trick," or bit of special information.	DEMONSTRATION
Col. 1	Col. 2	Col. 3

Unit 2 -- Teaching Aid #9

- OVER -

STEP III -- Application or Tryout:

STEP IV -- Checking, Testing and Follow-Up:

Tools, Equipment and Supplies:

DEMONSTRATION (Cont'd)

IMPORTANT STEPS (Cont'd)	KEY POINTS (Cont'd)	DEMONSTRATION (Cont'd)

BIBLIOGRAPHY

1. Hill, W. E., and Ewing, C. H., Materials and Methods for Vocational Training, New York: McGraw-Hill Book Company, 1942.

2. Kidd, D. M., and Leighbody, G. C., Methods of Teaching Shop and Related Subjects, Albany: Delmar Publishers, Inc., 1955.

3. Struck, F. T., Creative Teaching, New York: John Wiley and Sons, 1938.

EPDA Six Weeks Pre-Service Institute
July 14 - August 22, 1969
Institute Questionnaire Form

---------------------------No Names Please-----------------------------

Following are the topics which were presented in the Six-Weeks Pre-Service Institute.

To aid our staff in the planning of future institutes, we would like to have your honest appraisal of each topic. Simply check (✓) the appropriate column; please check all topics.

The blank space at the right side of the form is for your constructive comments. Feel free to write any comment which will assist us in our evaluation.

Please rate each topic we have had	Excellent	Good	Fair	Unsatis-factory	Constructive Comments on how the Presentation could be improved
Survey of Vocational Education in Ohio					
Prosser's Theories					
Types of T & I Programs					
Qualities of a good instructor					
Types of Shop Demonstrations					
Analysis Techniques					
Frequency Charts					
Micro-Teaching On Television					
Audio-Visual Aids					
Job Operation and Job Planning Sheets					

	E	G	F	U	
Principles of Learning, Psychology of the Adolescent and Motivation					
The Lecture Method					
The 4-Step Plan in Related Information					
Developmental Method					
Unique Problems of Inner-City Schools					
Vocational Industrial Clubs of America (VICA)					
Individualized Instruction and Supervised Study					
Bird Method of Instruction					
Personnel Systems and Student Records					
Progress Charts					
How to Conduct a Field Trip					
Teacher Liability					
Conference Techniques					
Shop Rules and Regulations					
Housekeeping					
Panel "Tips to the Beginning Teacher"					

	E	G	F	U	
Evaluation					
Panel "Motivation of Students"					
Rotation of Work					
Maintenance systems, inventory, ordering supplies and materials, school records and school forms					
Safety in Your Shop					
Joint Vocational School Visitation					
Subject "Guidance Teacher Relationship"					
Related Presentations					
Panel - Teachers from 1968 Workshop, Topic - Items Not Prepared for as Beginning Teachers					
Case Studies in Discipline					
State Achievement Tests and Test Writing					
Teacher Educator's Role in School Visitations					
Professional Ethics					
Professional Organizations					
Teacher Certification in Ohio					

EPDA SIX-WEEKS PRE-SERVICE INSTITUTE

FINAL EXAMINATION

Message to Participants: On the following pages is the Final Examination for the EPDA Institute. This examination is being given for two reasons; (1) to help our staff evaluate your progress in the institute and (2) to enable us to assess the extent to which our objectives have been met.

Examination Form: The examination consists of 100 items. There are 30 True-False, 42 Multiple Choice and 28 Matching. Specific directions for each section are given. Please do not write your name or place any marks on the test form.

Answer Form: The answer form is to be completed with a soft lead pencil (#2). Do not use ballpoint pens. Print your last name, skip a space, then first name in the spaces provided. Darken the letter in the columns under your name that corresponds with the letters in your name. This places your name on a computer code.

PART I

TRUE & FALSE

Directions: The following 30 statements are either True or False. If the statement is true, darken the first space on the answer sheet marked "T". If the statement is false, darken the second space on the answer sheet marked "F".

1. The function of Vocational Education is to prepare persons for and enable them to progress in a socially useful occupation.

2. One of the major differences between the vocational education curriculum and others is that the vocational education curriculum does not include general education courses.

3. The use of an effective visual aid eliminates the need for a lesson plan.

4. The use of a 16mm sound film replaces the teacher in the presentation step.

5. Job plan sheets are written by the instructor.

6. The "question" is the basis of the developmental method.

7. Multiple choice items can measure the learner's achievement in a specific subject area.

8. The main purpose of aptitude tests is to determine the degree of achievement in a specific subject area.

9. Lesson plans are essential for new teachers, but not needed by experienced teachers because of their restructive nature.

10. Related instruction is a separate class, therefore, it is not necessary to correlate it with the laboratory.

11. Individual achievement is maintained accurately by means of a visable frequency chart.

12. A student personnel system is one in which students are placed in a cooperating industry to learn proper interviewing and job application techniques.

13. Charles A. Prosser's Theorums on Vocational Education are not applicable to modern philosophies of vocational education.

14. The first step in solving a minor discipline problem is to send the student to the office.

15. The same lesson plan will work equally well with all classes as long as the students are the same age level.

16. Overhead questions require an individual response.

17. Since safety is essential to each student, it should be taught only in the related classroom, where there is no interference from noisy equipment.

18. Operation sheets are used primarily in the laboratory.

19. Vocational Education is one part of the total education program in the State of Ohio.

20. Vocational instruction should be established and maintained on the basis of occupational needs.

21. The degree of darkness of the room is not an important factor when considering the use of the opaque projector.

22. A lesson plan is not required for the demonstration method.

23. The safety part of a lesson should be written as a separate outline.

24. To adequately cover a particular unit of instruction, weekly lesson plans are preferred over individual daily lesson plans because of the correlation factor.

25. The lecture method can be effective when introducing a new area of study.

26. Job sheets are written by the instructor.

27. The lesson plan should be written in detailed sentences to provide accuracy in the presentation.

28. Assignment sheets are used primarily in the laboratory.

29. When a test measures what it is intended to measure, it is said to have reliability.

30. Tests should be used only to determine final grades.

PART II

MULTIPLE CHOICE

Directions: Items 31 through 72 are multiple choice. Each statement needs a word or phrase to make it correct. Only one of the choices listed (A, B, C or D) is correct. Darken the space on the answer sheet that represents your choice of the correct answer.

31. In the Ohio Plan for Vocational Education, Trade and Industrial Education is called a

    A. Unit
    B. Department
    C. Division
    D. Service

32. The State of Ohio, Department of Education, Division of Vocational Education is administered by a

    A. Supervisor
    B. Director
    C. Coordinator
    D. Principal

33. A device not considered a part of a personnel system is

    A. Clean-up chart
    B. Work assignment chart
    C. Analysis chart
    D. Attendance chart

34. Students having social, emotional or learning problems should be referred to the

    A. Department Chairman
    B. School Principal
    C. School Counselor
    D. School Nurse

35. Which of the following is a disadvantage of the overhead projector?

    A. Teacher faces towards the class
    B. Room lights may be on or off
    C. Complexity of the lesson
    D. Time, effort and expense necessary to prepare transparancies.

36. Which of the following combinations best describes the developmental method of teaching?

    A. Lecture and questioning
    B. Demonstration and lecture
    C. Questioning and discussion
    D. Questioning and demonstration

37. Class members suggest solutions to particular problems under the direction of a leader

   A. Lecture method
   B. Demonstration method
   C. Conference method
   D. Shop talk method

38. Which of the following is the most difficult to score

   A. Matching Items
   B. Multiple Choice Items
   C. Short Answer Items
   D. Essay Items

39. The aim of a lesson plan should be written as a

   A. Word
   B. Phrase
   C. Sentence
   D. Question

40. The analysis technique described by Frkylund is primarily for the use of

   A. Skilled mechanics
   B. Supervisors
   C. Instructors
   D Students

41. A service trade is one which is concerned with the

   A. Production of a useful article
   B. Services of a skilled mechanic
   C. Services of an operative
   D. None of the above

42. Inspection and testing activities should be included as part of the

   A. Job
   B. Operation
   C. Auxiliary Knowledge
   D. Step

43. The description of routine shop duties is the

   A. Progress chart
   B. Frequency chart
   C. Job Sheet
   D. Student Personnel System

44. In Ohio, liability for a shop accident would most likely be placed on the

   A. Superintendent
   B. Vocational Supervisor
   C. Teacher
   D. School Board

45. Which of the following professional organization is not a National organization?

A. OEA
B. AVA
C. NEA
D. AFT

46. The youth organization designed for students enrolled in T & I is

A. FHA
B. FFA
C. VICA
D. DECA

47. The teacher may reduce the number of situations requiring disciplinary action by

A. Having a long list of rules
B. Ignoring minor offenses
C. Keeping the class busy
D. Not following a definite daily procedure

48. The conference method is most suitable when

A. The leader is autocratic
B. The participants are inexperienced
C. New information is to be presented
D. The participants have experienced the problem

49. In the Allen 4-Step Lesson Plan, which step is used to discover what the student has learned?

A. Preparation
B. Presentation
C. Application
D. Evaluation

50. Which of the following is considered a method of teaching skills?

A. Job sheet
B. Presentation
C. Demonstration
D. None of the above

51. Which of the following is not an objective type of test?

A. Performance
B. Essay
C. Multiple Choice
D. True-False

52. A custom occupation is one which is concerned with the

A. Maintenance, repair and overhaul of an item
B. Production of an article
C. Modification of design of standardize products
D. Contribution of an operative

53. Which of the following ways of stating an operation is most correct according to Fryklund?

A. Use of a ballpoint pen
B. Operation of a ballpoint pen
C. How to write with a ballpoint pen
D. Write with a ballpoint pen

54. A device used to aid the teacher in the arrangement of skills from the simple to complex is the

A. Progress Chart
B. Job Plan Sheet
C. Frequency Chart
D. Operation Sheet

55. A detailed plan of instruction for a course is a description of a

A. Program of studies
B. Curriculum
C. Course of Study
D. Course Outline

56. Which of the following is not one of the basic objectives of T & I Education?

A. Teach skills
B. Develop good attitudes
C. Exploratory experiences in various occupations
D. Teach safety

57. The lack of probable wrong answers will cause the most difficulty when constructing

A. Multiple Choice Items
B. Short Answer Items
C. True-False Items
D. Essay Items

58. Which of the following factors should not be considered when establishing a grade system?

A. Pupil performance in the laboratory or shop
B. Pupil activities after school hours
C. Pupil attendance record in class
D. Pupil achievement in related class.

59. The term "cumulative nature of operations" refers to

A. Repetition of previous operations and addition of new operations in each job
B. The complexity of each new operation
C. The number of operations in a job
D. Repetition of previous steps and addition of new steps in each operation.

60. The basic elements of an occupational analysis are

A. Operations and auxiliary knowledge
B. Operations and related information
C. Operations and related subjects
D. Operations and jobs

61. Essentially, a list of operations

A. Job
B. Key Points
C. Steps
D. None of the above

62. Major divisions of an occupation

A. Jobs
B. Key Points
C. Blocks
D. Operations

63. What the worker must know

A. Key Points
B. General Related Information
C. Technical Related Information
D. Steps

64. The vehicle used to give the learner practice

A. Blocks
B. Key Points
C. Jobs
D. Steps

65. Doing units

A. Jobs
B. Blocks
C. Steps
D. Operations

66. Can be considered occupations in themselves

A. Jobs
B. Blocks
C. Key Points
D. Related Topics

67. Good to know, but not absolutely necessary

    A. Technical Related Information
    B. General Related Information
    C. Auxiliary Information
    D. Operation Sheets

68. Mathematics and Science, necessary to perform a skill

    A. Technical Information
    B. General Related Information
    C. Nice to Know Information
    D. All of the above

69. Method of describing routine shop/laboratory duties and assigning students to those duties

    A. Operation Sheet
    B. Assignment Sheet
    C. Personnel System
    D. Job Sheet

70. Used to arouse interest

    A. Preparation Step
    B. Presentation Step
    C. Application Step
    D. Evaluation Step

71. New Information/Skills are taught

    A. Preparation Step
    B. Presentation Step
    C. Application Step
    D. Evaluation Step

72. Method of presenting related information material not included in the text book

    A. Job Sheet
    B. Operation Sheet
    C. Assignment Sheet
    D. Information Sheet

PART III

MATCHING

Directions: You have been encouraged to use the Allen 4-Step Method of teaching. You are to consider the four teaching steps to be lettered: A (Preparation Step); B (Presentation Step); C (Application Step); and D (Evaluation Step); for Items 73 through 81. Listed below are nine principles of learning. Read each principle of learning and decide which one of the four teaching steps can be best associated with that principle of learning. Darken the letter of that teaching step in the blank space provided on the answer sheet.

73. We learn through the senses; sight, hearing, touch, smell and taste. We learn easier if we received the impression through a combination of several senses.

74. The learning process is experiencing, doing, reacting, undergoing. LISTENING ALONE IS NOT LEARNING.

75. The reason for learning something new should be apparent to the learner.

76. New things to be taught should be associated with things the learner already knows.

77. The learner learns best when he is ready to learn.

78. The learner learns best when he can see the results of his efforts.

79. The learner learns best when he experiences success.

80. The learner learns when he is at ease.

81. The learner learns a skill best if he performs it exactly as it was taught.

Directions: Listed below in the left hand column are 19 words or statements. In the right hand column are listed the four steps of a lesson plan. Choose the correct letter preceeding the teaching step and darken in the corresponding letter in the blank space on the answer sheet for Items 82-100.

82. Teacher's Observation
83. Film
84. Tell a story
85. Assignment sheet
86. Written test
87. Demonstration
88. Job sheet
89. Lecture
90. Oral report
91. Directed study
92. Guest speaker
93. Show finished product
94. Check job
95. Thought provoking question
96. Oral testing
97. Information sheet
98. Get materials ready
99. Student performs
100. Check for efficiency

A. Preparation

B. Presentation

C. Application

D. Evaluation

C-5 In-Service Graduated Evaluation Form

TO THE EVALUATOR:

The State Department of Education, Division of Vocational Education, is currently conducting an EPDA Pilot Project* in the State of Ohio.

The major objective of the project is to attract skilled craftsmen to teaching careers in the secondary schools of Ohio, and to prepare them to conduct quality programs of trade and industrial education.

The attached instrument was developed to help the EPDA Staff evaluate the teaching performance of teachers currently teaching in your school.

The instrument will be administered at five different times to each teacher throughout the first year of his (her) teaching.

We are asking you to offer your services in administering the evaluation form, one of the five times, so that we can get an independent evaluation.

I appreciate the support you have given the project to date, and hope that this assignment will not present you too great an imposition.

Sincerely yours,

Carl V. Gorman

Carl V. Gorman
Director-Coordinator
EPDA Project

*Education Professions Development Act
(U.S. Department of Health, Education, and Welfare)

Trade and Industrial Education
EPDA Project

---------- In-Service Evaluation Rating Form ----------

______________________________ Name of Teacher Being Evaluated

______________________________ School

______________________________ City

______________________________ Trade Area

______________________________ Date of Evaluation

______________________________ Name of Person Conducting Evaluation

______________________________ Official Title

Instructions: Below is a list of statements concerned with trade teacher competencies. Please circle the number to the right of each statement, which best describes the level of teacher performance.

Each competency is rated on a graduated scale from one to five. A rating of five (5) is considered excellent; likewise, a rating of one (1) is considered unsatisfactory. Please circle only one number for each competency. If you feel you do not have sufficient information to effectively evaluate the teacher on any given competency, place a check mark (✓) in the blank column located to the right of the rating scale.

The blank spaces on the last page of the form are for additional comments you might have, which could be of value in your evaluation of the teacher.

I. Teaching Methods and Techniques

The teacher:	Unsatis-factory	Poor	Average	Good	Excellent	
1. Organizes and conducts effective demonstrations	1	2	3	4	5	
2. Stimulates and maintains interest throughout the learning process	1	2	3	4	5	
3. Expresses himself (herself) orally	1	2	3	4	5	
4. Expresses himself (herself) in writing	1	2	3	4	5	
5. Has the ability to select and use a wide range of techniques, materials and methods in teaching	1	2	3	4	5	
6. Makes provisions for individual difference in the instructural plan.	1	2	3	4	5	
7. Utilizes the 4-step plan of instruction in the laboratory and related classroom	1	2	3	4	5	

		Unsatis-factory	Poor	Average	Good	Excell-ent	
8.	Prepares and uses information sheets in his teaching	1	2	3	4	5	
9.	Possesses skill in leading group discussions	1	2	3	4	5	
10.	Uses audiovisual aids in presenting course content	1	2	3	4	5	
11.	Motivates students to acquire skill and knowledge	1	2	3	4	5	
12.	Utilizes questioning as a teaching tool	1	2	3	4	5	

II. Selection and Organization of Subject Matter

The teacher:

1.	Possesses an understanding of the learning process	1	2	3	4	5	
2.	Selects and uses instructional materials and references suited to the student's level and interest	1	2	3	4	5	
3.	Correlates the related theory with the manipulative skills of the trade	1	2	3	4	5	
4.	Writes meaningful objectives and is able to construct unit lesson plans based on the objectives	1	2	3	4	5	
5.	Analyzes his trade for teachable content	1	2	3	4	5	
6.	Selects appropriate jobs and other learning activities as a vehicle of instruction	1	2	3	4	5	

III. Classroom and Laboratory Management

The teacher:

1.	Has established and maintains acceptable standards of discipline	1	2	3	4	5	
2.	Utilizes good housekeeping practices in his teaching	1	2	3	4	5	
3.	Maintains progress charts and records of individual student achievement	1	2	3	4	5	
4.	Has organized procedures for the maintenance of tools and equipment	1	2	3	4	5	
5.	Maintains a procedure for storage and control of tools, supplies and materials	1	2	3	4	5	

	Unsatis-factory	Poor	Average	Good	Excellent	
6. Selects and orders special materials, supplies and equipment	1	2	3	4	5	
7. Has established a daily plan of procedure	1	2	3	4	5	
8. Has a safety program in operation	1	2	3	4	5	
9. Maintains and utilizes a shop personnel chart for personnel management	1	2	3	4	5	
10. Instructs students in the care and conservation of equipment and materials	1	2	3	4	5	

IV. Evaluation

The teacher:

1. Constructs test items of all basic types	1	2	3	4	5	
2. Has established a procedure for evaluating and recording student achievement	1	2	3	4	5	
3. Uses a variety of evaluation criteria in grading students	1	2	3	4	5	
4. Applies the rules for item and test construction in test development	1	2	3	4	5	
5. Knows the advantages, disadvantages and applications of each type of test item	1	2	3	4	5	
6. Uses performance tests as one measure of student achievement in the laboratory	1	2	3	4	5	

V. Professionalism and Public Relations

The teacher:

1. Cooperates with supervisors and administrative personnel	1	2	3	4	5	
2. Works as a member of a professional team in planning a suitable educational program for the vocational student	1	2	3	4	5	
3. Builds community support for the program of trade and industrial education	1	2	3	4	5	
4. Understands the principles of human relations applied to student, faculty and the community	1	2	3	4	5	

	Unsatis-factory	Poor	Average	Good	Excellent	
5. Has shown a willingness to function as a member of a committee	1	2	3	4	5	
6. Provides leadership in group activity	1	2	3	4	5	
7. Works with advisory and committee groups	1	2	3	4	5	
8. Is active in professional education organizations	1	2	3	4	5	

GENERAL COMMENTS:

EPDA Project
For The Preparation of
Trade and Industrial Education Teachers
University of Cincinnati

Consultant Personal Data and Outlines of Presentation

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Position: Carpentry Instructor - Greene Joint Vocational School
Education: B.S. Western Ky. Univ. Major, Ind. Arts. Ed., M.A. Western Ky. Univ. Major, Education, Minor, Ind. Arts, Additional Grad. Sem. Hrs. taken at Miami Univ.
Teaching Experience: 1 yr. Western Ky. Trade School, woodworking; 2 yrs Yellow Springs H.S., Ind. Arts; 7 yrs. H.S. Principal, Yellow Springs & Bellbrook, Ohio; 2 yrs. Elem. Principal, Bellbrook,O 2 yrs. Asst. Supt., Bellbrook, O.; 1 yr. Supt. Spring Valley,O 1 yr. Carpentry Instructor, G.J.V.S.
Work Experience: Carpenter 1948-50, Summer employment as carpenter - home construction 1950-59.

OUTLINE

Topic: Progress Charts

I. Definition -- record of operations

II. Importance of records:
   A. To teacher
   B. To pupil
   C. To school

III. Using Progress Chart:
   A. Demonstration
   B. Performed
   C. Work satisfactorily completed
   D. Rate Note: NO GRADES example

IV. Plan for use of Chart
   A. Keep up to date
   B. Display

V. Problems that may develop if not used properly.

Topic: Rules and Regulations of Shop and Related

I. Rule #1 -- Teacher will keep the pupils profitably busy with meaningful, purposeful work, which will provide a good learning experience for each pupil.
  A. Teachers create a majority of their own discipline problems by:
    1. Not being prepared
    2. Not being alert
    3. Inconsistant
    4. Not investigating all complaints
    5. Not explaining fully all rules
    6. Not being firm and fair
    7. Not acting within limits of authority

II. Rules are necessary -- Must be understood by all.
  A. Rules should cover:
    1. Horseplay
    2. Creating accident hazards or disregard for safety practices
    3. Foul language
    4. Respect for the rights of others

III. Punishment
  A. To be effective, punishment must be:
    1. Certain
    2. Understood
    3. Just
    4. Painful
      a. Physical
      b. Mental

IV. Types of Discipline:
  A. Reproofs
    1. Personal conference best
  B. Detentions
    1. After school hours
    2. During free time
  C. Suspension (temporary)
  D. Expulsion
  E. Tasks
  F. Isolation

V. Summary

Name: Ralph C. Neal
Address: 91 Kingston Ave., Grove City, Ohio
Phone: 875-2948
Position:
Education: Martins Ferry H.S. Kent St. Univ. B.S., Ohio St. Univ. M.A.
Teaching Experience: Lancaster H.S. 4 yrs. Mch. Shop, Martins Ferry 7 yrs. Mch. Shop
Work Experience: 23 yrs. Machinist, Wheeling Steel Corp.

OUTLINE

Local School Organization as it relates to the Vocational Trade and Industrial Shop and Related Instructor

I. Secondary School Philosophy of Education
    A. State Philosophy
    B. Vocational Philosophy
    C. Personal Philosophy

II. School Organization
    A. General Plan
        1. Board of Education Personnel
        2. Superintendent of Schools
        3. Supervisor of Curriculum
        4. Principal
        5. Department Head
    B. Small Size School
        1. Lines of Authority
        2. Teachers Relative Position
    C. Medium Size School
        1. Lines of Authority
        2. Building Principals Responsibility
        3. Vocational Supervisors Responsibility
        4. Teachers Relative Position
    D. Large Size School
        1. Lines of Authority
        2. Vocational Directors Responsibility
        3. Vocational Supervisors Responsibility
        4. Building Principals Responsibility
        5. Teachers Relative Position

III. School Policy
    A. Development
        1. Board of Education
        2. Superintendent
        3. Building Principal
        4. Director or Supervisor (Vocational)
        5. Department Head
        6. Teacher
    B. Areas of Policy
        1. Teacher
            a. Additional In-School Activities
            b. Personal Conduct in and out of School

2. Pupil
    a. In Class Conduct
    b. Out of Class Conduct
    c. Discipline
3. Program
    a. Course of Study
    b. Equipment Maintenance
    c. Equipment Purchase
    d. Supply Purchase and Control
    e. Courtesy Jobs
        1) Other Faculty Members
        2) Community and Individuals

4. Student Activities
    a. Clubs (VICA)
    b. Funds
    c. Field Trips
    d. Evening Meetings
    e. In-School Club Meetings
5. Community Relations
    a. Personal Contacts
    b. School Loyalty
        1) In-House Information
        2) School
        3) Administration
        4) Faculty
6. Student Selection

IV. Faculty Relations
    A. In-School Organizations
        1. CTA-OEA
        2. A.F. of T.
        3. Boiler Room Politics
        4. Lunchroom Politics
    B. Professional Organizations (Vocational)
        1. OVA
        2. AVA

V. Summation and Conclusions: The teacher is -
    A. A single unity of a total process of education
    B. A father-brother image
        (Mother-sister image)
    C. A confidant
    D. A master of a skill
    E. A master teacher
    F. A Friend
    G. An organizer
    H. A genius
    I. An arbitrator
    J. A loyal worker
    K. A just referee
    L. An advisor
    M. A giver of unlimited time

Question and Answer Session if time permits.

Name: Lindsay Ratliff
Address: Route #1, Box 409, Piketon, Ohio 45661
Phone: (614) 289-2164
Position: Supervisor, Pike County Joint Vocational School
Education: H.S.Diploma, Technical School 1 yr., Undergraduate Univ. of Cincinnati
Teaching Experience: 7 yrs. Machine Trade - Pike Co. J.V.S.;1 yr. Supervisor Pike Co. J.V.S.
Work Experience: 7 yrs. Tool Maker

OUTLINE

In presenting the various types of instruction sheets, each individual type will be presented in the following manner. A series of descriptive statements introducing the instruction sheet, explaining the how, what, and why of the particular instruction sheet. Following this, a sample instruction sheet of each type will be passed out to the group containing instructions.

I. Forms of Instructional Materials to be used
  A. The Operation Sheet
  B. The Job Sheet
  C. The Job Plan Sheet

II. Related Technology Instructional Materials
  A. The Assignment Sheet
  B. The Information Sheet
  C. Individual Instructions and Instruction Sheets

III. Bird Method of Study Outline and Lesson Plan

IV. How to Study Effectively

V. Individual Progress Chart

VI. Sample Related Theory Examinations

VII. Policy of Grooming and Dress

VIII. Vocational Social Studies Assignment Sheets

IX. Students Daily Shop Work Completion Record

X. Shop Safety Rules

XI. Personal Record Sheet

XII. Correct Conduct

XIII. Selection Criteria

IXV. Course of Study (Instruction Sheets Compiled)

XV. Teaching Techniques

XVI. Disadvantages of Instruction Sheets

XVII. Things All Teachers Need to Know About Instruction Sheets

* * * * *

Name: John A. Marrah
Address: 107 W. Brighton Rd., Columbus, Ohio 43202
Phone: (614) 263-3470
Position: Coordinator, Planning & Development - Columbus Tech. Institute
Education: London H. S., London, Ohio, Ohio St. Univ. Business Administration, B.Sc.; Univ. of Dayton, M.Sc., Educational Research; Univ. of Cincinnati, Voc. Ed., School Adm., Educ. Research.
Teaching Experience: U.S.Navy 1951-54 Electronics; Columbus Tech. Institute, Computer Applications
Work Experience: Ohio Dept. of Highways - Planning & survey & data processing, 4 yrs.; Ohio Dept. of Health - Administrative Asst., 4 yrs. Ohio Dept. of Education - Chief, Special Studies 4 yrs., Div. of Research & Data processing; Columbus Technical Inst. - Planning & Development 1 yr. and data processing instruction

OUTLINE

Effective Teaching of Safety

A. I. "Fire Prevention and Drills"
  A. Fire prevention procedure should be a part of every shop safety program.
  B. Shop instructor and student organized fire prevention program is a necessity.
  C. Organized procedures for initiating and evaluating the program.
  D. Effective drills must be conducted at intervals to maintain evaluation of the program.

II. "The Nature of Fire"
  A. A film on the causes and characteristics of fire. The story is based on a series of experiments and demonstrations dealing with the causes and control of fire; and some peculiar characteristics of certain types of fires.

B. I. "Planning, Organizing and Operating a Shop Safety Program"
  A. Develop a workable shop safety program delegating as much responsibility to the student as is consistent with good teaching practices.
  B. Develop a program using safety manuals, safety posters, and instructor guides.

II. "Hazard"
- A. A film that relates the necessity of forming effective safety habits at work and play.

III. "Safety Manuals* for Program Development"
- A. Guide to Safe Operation of Woodworking Machinery
- B. How to Work Safely with Air Power Tools
- C. Hand Tools - How to use them safely - How to keep them Safe
- D. Portable Electric Power Tools - How to use them Safely
- E. Safety in the Operation of Powered Industrial Trucks
- F. Welding with Safety
- G. Safety in the Manual Handling of Materials
- H. Foresight for Eyesight
- I. Ohio Industrial Safety Record

C. I. "Maintaining Good Housekeeping"
- A. Develop standards on good housekeeping
- B. Become familiar with the problems involved in good housekeeping

II. "Case of the Cluttered Corner"
- A. A film that stresses the importance of good industrial housekeeping. Traces on injury back through its many phases to its very beginning -- a piece of scrap paper thrown into a corner by the victim himself.

III. "Safety Manuals* for Industrial Good Housekeeping"
- A. Industrial Good Housekeeping

D. I. "First Aid Procedure"
- A. The development of first aid supplies and equipment necessary for the shop first-aid program.
- B. Establish forms and procedures for reporting or recording first-aid administered to students.

II. "Safety Manual" for Artificial Respiration Methods*

* The Industrial Commission of Ohio--Division of Safety and Hygiene

* * * * *

Name: G. Joseph Zieleniewski
Address: 4429 Orchard Lane, Cincinnati, Ohio 45236
Phone: 791-4915
Position: Instructor in Psychology
Education: Pershing H.S., Detroit; Ohio Univ. B.S. in English, Xavier Univ. M.Ed. Counseling, Texas A, M.; Kent St. U., Univ. of Cinn.
Teaching Experience: 5 yrs. Cincinnati Public Schools; 3 yrs. U.C.
Work Experience: Machine Operator - (3 summers)

OUTLINE

I. 9:00 a.m. - 12:00 p.m. Educational Psychology

II. 1:00 p.m. - 4:00 p.m. Psychology of Adolescence

I. Educational Psychology

Introduction to Psychology - Applied

- A. Essentials of Effective Learning
  1. Readiness
  2. Motivation
  3. Approaches to learning
  4. Value of Transfer
  5. Appraisal Functions
  6. Teaching Procedures

II. Psychology of the Adolescent

Introduction to Psychology - Developmental

- A. Dynamics of Growth
  1. Factors of Physical Change
  2. Intellectual Development
  3. Parental Problems - Emancipation
  4. Problems in School
  5. Heterosexual Development
  6. Patterns of Deviant or Delinquent Behavior

* * * * *

Name: Glenn H. Grismere
Address: 1136 Hillcrest Road, Cincinnati, Ohio 45224
Phone: 542-5844 (home) 632-8441 (work)
Position: Director Hamilton County Joint Vocational School
Education: Woodward H. S. Cincinnati; Asso. Deg. Ohio College of Applied Science; B.S. Univ. of Cincinnati (Voc. Ed.); M.E. Univ. of Cincinnati (Voc. Ed.)
Teaching Experience: Hughes H. S., Industrial Arts, 1 yr.; Ohio College of Applied Science, 1 yr.; Cincinnati Cooperative School of Technology, 1 yr.; South Central J.V.S., 1 yr.; Hamilton Co. J.V.S.
Work Experience: George Diers Co., Technical Rep., 6 mos.; Cincinnati Gas & Electric, Draftsman, 6 mos.; U.S.Army, Repair & Utilities, 33 mos.; Jennings Buick, Parts Clerk, 6 mos.

OUTLINE

Advisory Committees

I. Advisory Committees Defined (terms)
  A. Advisory Counsels
  B. Lay Committees
  C. Craft Committees

II. Advisory Committee Structure
  A. Federal
  B. State
  C. Local

III. Duties of Advisory Committees
  A. Evaluation
  B. Surveys
  C. Course Planning
  D. Setting of Standards
  E. Assisting Teachers
  F. Recruit Teachers
  G. Part Time Employment
  H. Financial Support
  I. Influence Legislation
  J. Publicizing School Program

IV. Selecting Suitable Committee Members
  A. Personal Qualifications
  B. Experience
  C. Available Time
  D. Character
  E. Community Representation

V. How Advisory Committee Operates
  A. When do you have meetings
  B. What do you cover
  C. Where do you have meetings
  D. Why do you have meetings

VI. Class Participation Project
  A. Each student to list 5 to 8 people who they might select for their advisory committee

  B. Class into groups of 4 to 5 to work out agenda for first meeting of new advisory committee

Name: Bernard D. Crum
Address: 1645 Randall Rd., Yellow Springs, Ohio 45387
Position: Adult Education Supervisor, Green Joint Vocational School
Education: Willoughby H.S., Willoughby, Ohio; Kent St. Univ. B.S. in Business Administration, B.S. in Education; Ohio State Univ. Distributive Education Courses; Univ. of Cincinnati Master of Education Major.
Teaching Experience: 2 yrs. Blanchester H.S., D.E. and C.O.E.; 5 yrs. West Carrolton Sr. H..S., D.E. and Bookkeeping; 1 yr. Greene Joint Voc. School, Adult Education Supervisor
Work Experience: Retailing 6 yrs, Industrial 1 yr.

OUTLINE

Teacher Relationships

I. School Staff
    A. Teachers
        1. Vocational
        2. Academic
    B. Administrators and Supervisors
        1. Vocational Director
        2. Principal
        3. Departmental Supervisors
        4. Superintendent
        5. Assist Superintendent or County Supervisor
        6. State Supervisors and Teacher Trainers
    C. Non-Certificated Staff
        1. Secretarial
        2. Custodial and Maintenance

II. School Board

III. Students
    A. Your class
    B. Other Students
    C. Prospective students
        1. Recruiting
        2. Interviewing
        3. Selection

IV. Parents
    A. Conferences
    B. Home Visitations
    C. Other communications
    D. Open House

V. Businessmen
    A. Suppliers - Wholesalers
    B. Prospective Employers
    C. Community Leaders

VI. School and Community Organizations
  A. P.T.A.
  B. Service Clubs
  C. Other organizations

VII. Professional Organizations
  A. Teacher Associations
  B. O.E.A., N.E.A.
  C. O.V.A., A.V.A.

* * * * *

Name: Samuel J. Capozzolo
Address: 7920 Blome Road, Cincinnati, Ohio 45243
Phone: 793-9738
Position: Teacher-Coordinator, Printing Technology
Education: Commercial Vocational H.S., Cincinnati; U. of Cinn. B.S. in Education, 1954; U. of Cinn. M.Ed., 1956; Presently enrolled in Doctoral Program, U. of Cinn.
Teaching Experience: 3 yrs. U.S. Navy, Logistics, Navy Accounting Procedures;
5 yrs. Cinn. Public Schools, Adult Education Program
18 yrs. Cinn. Public Schools, Business Education and Printing Technology
Work Experience: 3 yrs. Aeronca Aircraft Corporation, Purchasing Agent
3 yrs. B/C Home Air Conditioners, Owner and Manager
10 yrs. Capozzolo Typeseting & Printing Co., Owner and Mgr.
1 yr. Addressograph/Multigraph Corp., Customer Relations

OUTLINE

Qualities of a Good Teacher

I. Basic Qualities - Personal
  A. Professional Preparation
  B. Personal Physical and Mental Health and Grooming
  C. Personality
  D. Realism

II. Specific Qualities - Roles of the Teacher
  A. As viewed by Staff Personnel Directors
  B. As viewed by Principals
  C. As viewed by Supervisors
  D. As viewed by Pupils
  F. As viewed by Colleagues
  G. As viewed by the Community

III. Related Qualities
  A. Ethics and the Professional Organizations
  B. Evaluation
  C. Promotions and Salary Increases
  D. Merit Pay, Differentiated Staffing Plans

IV. Summary
  A. Current Literature
  B. Areas requiring additional research

Name: Merrell H. Zeter
Address: 7962 Kellogg Ave., Cincinnati, Ohio 45230
Phone: 231-5015
Position: Director of Vocational Education
Education: Anderson - Forest Hills; Univ. of Cinn. B.S. Ed.
Teaching Experience: West Clermont, Glen Este. High, Cosmetology, 2 yrs. Supervision, 2 yrs.
Work Experience: 18 yrs. Beauty Salon Owner, 3 shops Eastern Hamilton Co.

OUTLINE

Shop Management Presentation

I. Comparison of comprehensive high school program with vocational section with Joint Vocational High School Program.
  A. Chain of command
  B. Part vocational education plays

II. Shop Management (General)
  A. Physical plant
  B. Meetings with other supervisors

III. Superintendent and Clerk Meetings
  A. Policy
  B. Buying Procedures
  C. Political emphasis
  D. Law and order
  E. Personal life
  F. Hiring procedures

IV. Teacher's meetings
  A. General
  B. Specific vocational

V. Counselor and principal meetings
  A. General school policy
  B. Where you fit into this picture

VI. Shop safety and maintenance of equipment

VII. Inventory OVEP funds 50-50 money

VIII. Attendance

IX. Discipline

X. Fees

XI. Other areas of vocational supervision
  A. Industrial arts

XII. Shop Management (Specific)
  A. Auto mechanics, auto body and fender, cosmetology, radio and television, business and office education, home economics, job training, occupational work experience, distributive education, general clerical and night adult programs.

Name: Kenneth R. Higgins
Address: RR #2 Mt. Sterling, Ohio 43143
Phone: 869-2361
Position: Assistant Supervisor, Measurement and Evaluation Services, Division of Guidance and Testing, Ohio Department of Education
Education: Wilmington College A.B. - Education, Social Studies, Science '59
Miami University M.Ed. - Aministration, Guidance, '62
Teaching Experience: 1958-63 Blanchester Local Schools, General Science, American History, Social Studies, Counselor
1963-65 Franklin City Schools - Jr. High Guidance Counselor
1965-69 Division of Guidance & Testing, Ohio Dept. of Education
Work Experience: 1951-53 Drug Store, General Sales Clerk
1953-54 Randall Co. (Auto Trim), Assembly Line
1954-56 U.S.Army, Communications
1958-63 Service Station (Summers), General Sales

OUTLINE

Handouts

I. The following list represents the titles of handout materials received by program participants
   A. Message to Trade and Industrial Education (1 page)
   B. Tentative Agenda (1 page)
   C. Nature of Testing (4 pages)
   D. A glossary of 100 Measurement Terms. Harcourt, Brace and World, Test Bulletin, No. 13 (6 pages)
   E. Individual Test Profile Sheet (Percentile) (1 Page)
   F. Individual Test Profile Sheet (Stanine) (1 Page)
   G. The Major Characteristics of Essay and Objective Tests (3 pages)
   H. Relationship of Normal Curve to Percentile (1 Page)
   I. Using Classroom Test to Develop the Self Concept of Students (1 page)
   J. Sample Student Profile of Trade and Industrial Education Test Results (1 page)
   K. A Test (1 page)

* * * * *

Name: Charles B. Dygert
Address: State Office Building, Ohio Department of Education, Division of Vocational Education, 65 South Front Street, Room 610, Columbus, Ohio 43215
Phone:
Position: Consultant Apprenticeship Trainer
Education: B.S. T & I
30 + M.A. (will finish in Spring)
Teaching Experience: 1 Yr. MOTA
3 Yrs. Apprentice
Work Experience: 13 yrs. Tool Die

OUTLINE

Leadership Development

I. Reasons for Leadership Skills
  A. Preparation for adulthood (must produce whole student)
  B. Student is product of the program
  C. Youth sell vo-ed not adults
  D. Preparation for leadership (must accept role or we have failed)
    1. Occupation (job progress)
    2. Civic responsibilities
      a. Local government, Boards of Education
      b. PTA, etc.
  E. VICA is an inter-cirricular activity
  F. Service Organizations (continue leadership development)
    1. Jaycees, Lions, Kiwanis, Rotary, Women's Clubs, Women's League of Voters, Etc.

II. Development of Leadership Skills
  A. Social Skill Development
    1. Banquets and social events
    2. Meeting people
      a. Forward approach (handshake)
      b. Remembering Names and Titles
    3. Act as adults (interaction with adults)
  B. Leadership Skills
    1. Parliamentary Procedure (eliminates confusion)
    2. Group Dynamics
    3. Public Speaking (always learning)
    4. Listening abilities
    5. Self evaluation
    6. Courtesy
    7. Dress and Conduct

III. Philosophy of Education
  A. Divisions of Vocational Education
  B. Trade & Industrial Education
  C. Education notables

IV. VICA - Local, State and National Organization
  A. Constitution and by-laws
  B. National handbook
  C. Officers' handbook
  D. Parliamentary procedures handbook

V. VICA Skills
  A. Learn Pledge
  B. Learn Motto -(describes VICA)
  C. Opening and closing ceremony

VI. Promote Idealogy of VICA
  A. Public Relations
  B. Relate VICA Story
  C. Demonstrate Pride in our Organization (Pride in T & I)

*RESPONSIBILITY TO PROMOTE VICA

Name: Robert L. Finkelmeier
Address: 344 Amazon, Cinn., Ohio 45220
Phone: 861-0397
Position: Industrial Trainer & Grad. Student, Univ. of Cinn.
Education: Ed.M. University of Cinn. Vocational Education
Teaching Experience: 4 yrs. Military Service Reserve
3 yrs. Supervisory Instruction
Work Experience: 4 yrs. Machine Tool Apprentice Program, Cinn. Milling Machine Co.; 3 yrs. Customer and Public Relations Coordinator, Cinn. Milling Machine Co.

OUTLINE

Conference Leadership

I. Definition of a Conference

II. Background of the Conference Method

III. The Conference Leader

IV. Conference Types - What Happens in a Conference

V. The Conference Outline and the Steps in a Conference

VI. The Use of the Question

VII. Using the Chart Pad, Chalkboard, and other Visual Aids

VIII. Conference Outlines for the Leader

IX. Reference Material

X. Practical Exercise

* * * * *

Name: William Lawless
Address: 1024 So. 4th Street, Ironton, Ohio 45638
Phone: 532-6883
Position: Automechanic Instructor
Education: High School
Teaching Experience: 4-1/2 years Ironton High School, Automechanics Shop, Automechanics Related
Work Experience: Automechanic 20 yrs., 4 yrs. School Bus Maintenance

OUTLINE

Work Station Assignments

I. Why have assignments?

II. Safety

III. Discipline

IV. Work Sheets

V. When to rotate students

* * * * *

Name: Dr. Byron A. Zude
Address: 7258 Royalgreen Drive, Cincinnati, Ohio 45244
Phone: 231-0603
Position: Associate Professor of Education, Department of School Administration, University of Cincinnati
Education: High School, Ironton, Missouri, University of Missouri, Bachelors, Masters, and Doctorate.
Teaching Experience: 4 yrs. Missouri Secondary Schools, 7 yrs. High School Principal, Secondary Schools in Missouri, last principality Center High School, Kansas City, Missouri, 1959-62).
Work Experience: Assistant Real Estate Manager for Kroger Co. in St. Louis, 1955-56.

OUTLINE

Teacher Liability

I. Movie of Teacher Liability from O.E.A.
   A. Discussion

II. Teacher
   A. How you are liable
   B. What you should do as a teacher
   C. Witness

III. School and School Board
   A. Who is liable
   B. Legal Help

IV. Summary and Questions

* * * * *

Name: Dennis H. Price
Address: Dept. of Vocational Education, Univ. of Cincinnati
Cincinnati, Ohio 45221
Phone: 475-4671
Position: Head of Dept. of Vocational Education and Professor of Vocational Education
Education: B.S.I.E. Purdue Univ., W. Lafayette, Inc., 1932
M.S.E. Purdue Univ.
Ed.D. Indiana University, Bloomington, Ind., 1955
Teaching Experience: Galesburg, Ill. Public Schools, 2 yrs. (1932-34), Ind. Arts.; East Chicago, Ind. Public School, 5 yrs. (1934-38), Vocational Education; Purdue University

Teaching Experience: (Cont'd.) 1 yr. (1939-40), Vocational Education; Indiana State Teachers College, Terre Haute, Ind. (1940-52); Univ. of Cincinnati, 1952-Present, Professor of Vocational Education and Head of Department.

Work Experience: Machinist 1924-1930 generally full time. 1934-39 Part time.

OUTLINE

Survey of Trade and Industrial Programs

I. Overview

II. Type of Programs

Professional Organizations

I. O.V.A.

II. A.V.A.

III. Iota Lambda Sigma

Certification

I. Types of certification

II. Requirements for certification

III. New Teachers

EPDA PROJECT
For The Preparation Of
Trade and Industrial Education Teachers
Kent State University

Consultant Personal Data and Outlines of Presentation

Name: Mr. Harold Fulton
Address:
Phone:
Position: Vocational Counselor
Education: Cuyahoga Fall H. S. - Kent State Univ. B.S. in Ed., M.S. Ed.
Work Experience: Loblaws, Inc. - Clerk - 3 yrs.
U.S. Air Force - Aircraft Mech. - 4 yrs.
Base Exchange Inc. - Cook - 1 yr. - U.S. A. F.
Central Parking - U.S. A.F. Lot Boy - 1 yr.
Lawson's Inc. - Clerk - 2 yrs.
Teaching Experience: Northwestern H.S. - Guidance Program - 2 yrs.
Wooster H.S. - History 3 yrs. Guidance 1/2 time 1 Yr.
Thomas Ewing Jr. High - History - 1/2 yr.

OUTLINE

I. Points of Major Emphasis
   A. Vocational Education as a student centered approach to teaching.

   B. Societies need for a person who is both technically competent and a participating citizen in his community.

   C. The need for an instructor to become aware of his students as personalities with varying backgrounds.

   D. The orientation and selection process that has been used in enrolling students in the Wayne County Joint Vocational School.

      1. Aptitude Testing - how used, when given, and why.

      2. Occupational Orientation - job patterns, and the wide variety of work opportunities in any trade area.

      3. The importance of involving home school districts, parents, business, and industry in the student information service program.

      4. Wayne County Joint Vocational School Selection Criteria.

* * * * *

Name: Mr. Ed Horner
Address:
Phone:
Position: T & I Supervisor & Adult Education
Education: Martins Ferry H.S., FennCollege
Work Experience: Cleveland Welding Co. Mch. Operator - 8 mos.
Republic Steel Co. Apprentice Machinist - 2 yrs.
Wheeling Steel Corp. Apprentice Mach. and Mach - 8 yrs.
Olin Mathieson Chem. Corp. Experimental Mach. & Die Maker - 5 yrs.
Teaching Experience: U.S. Naval Reserve - Yeoman (Clerical) - 5 yrs.
Martins Ferry High School - Machine Trades - 4 yrs.

OUTLINE

Requisiting Supplies, Equipment, Maintaining Inventories & Maintenance of Equipment

I. Introduction and Objectives
  A. Familiarity with basic forms and necessary information in ordering.
  B. Knowledge of Chain of Command.
  C. Know that all requisitions must be approved before ordering.
  D. Be familiar with supplies requisitioned through tazpayers money and those through activities funds.
  E. Familiarity with the Finance Custodians
  F. Knowledge of Edspecs for ordering equipment.
  G. Knowlege of Inventory systems and maintenance.
  H. Familiarity with maintenance of equipment.
  I. Knowledge of supplies needed for C/R operation.
  J. Knowledge of supplies for Lab operation.
  K. Knowledge of textbook ordering.
  L. Knowledge of Custodial supplies needed.

II. Brief Overview of School Organization
  A. Community (taxpayer)
  B. Board of Education
  C. Superintendent
  D. Clerk-Treasurer
  E. Director
  F. Principal
  G. Supervisors
  H. Coordinators
  I. Teachers
  J. Students

III. Requisitioning Supplies
  A. Ordering Transparency and Handouts
    1. Basic information required when ordering
    2. Cautioning remarks (avoid unnecessary frills)
    3. Types of Supplies
    4. Ordering On Time
    5. Instructor copy
  B. C/R Supplies (Transparency and Handouts)
    1. Samples of supplies available
    2. Quantity
    3. Unit
    4. Description
    5. Where purchased

- C. Textbook Requisition (Transparency and Handouts)
  - 1. Amount
  - 2. Name and Author
  - 3. Copyright Date and Edition
  - 4. Publisher
  - 5. Price
  - 6. Department
- D. Lab Requisition (Transparency and Handouts)
  - 1. Quantity
  - 2. Unit
  - 3. Complete description
  - 4. Manufacturer or Distributor
  - 5. Price per unit and total cost.
- E. Janitorial supplies (Transparency and Handouts)
  - 1. Amount
  - 2. Item
  - 3. Those items are generally stock items (soap, towels, brooms, mops, etc.)
  - 4. Department
- F. Application (student participation) (also explain Activity Fund Pay in/out)
  - 1. Requisition C/R supplies
  - 2. Textbooks and work books
  - 3. Lab supplies
  - 4. Janitorial supplies
  - 5. To familiarize the student with the idea that these items are items that are needed for the efficient operation of their program.

IV. Inventories (show Transparency on inventories)

- A. Running (perpetual) inventory
  - 1. Beginning inventory
  - 2. Accumulated amount of usage
  - 3. Ending inventory
  - 4. Amount to reorder
  - 5. Price per unit
  - 6. Total price
- B. Standard inventory
  - 1. Amount or number on hand
  - 2. Description
  - 3. Manufacturer (or distributor)
  - 4. Serial Number
  - 5. Condition
  - 6. Re-purchase value and total value

V. Maintenance of Equipment

- A. Emphasize proper care of equipment
- B. Utilize Students (part of training) (use student foreman or manager)
- C. Notify Supervisor immediately in writing of faulty equipment, worn out, or in need of repairs.
- D. Observe all safety precautions (wire grounding, etc.)
- E. Keep equipment free of as much foreign matter as possible.
- F. At end of each lab period shops should be immaculate (students should assist with this)

G. Keep equipment and accessories stored in dry places.
H. Use only prescribed tools, accessories, lubricants, wiring, circuit loads, etc.
I. Make periodic checks on equipment.
J. Point out that there is considerable expense involved.
K. Point out that if the equipment is inoperatable you (the teacher) are out of business.
L. Point out that the cost of bringing in factory mem to repair or adjust equipment.

VI. Summarize
   A. Have students to this.

* * * * *

Name: Thomas W. Gallagher
Address:
Phone:
Position: Superintendent
Education: West H. S. - Washington & Jefferson College
Work Experience: Lake City Malluable = Director of Personnel - 10 yrs.
Die Supply Co. - National Sales Director - 5 yrs.
Ind. Comm. of Ohio, Dir. Safety and Hygiene - Supt. - 7 yrs.
Teaching Experience: None

OUTLINE

I. Services of the Division of Safety and Hygiene

II. Statistics on School Accidents

III. Teacher's Responsibility
   A. Moral
   B. Legal

IV. Best Method for Teaching Safety in Schools

* * * * *

Name: John Vasko
Address:
Phone:
Position: Auto Shop Instructor
Education: Woodrow Wilson H.S. - General Motors Inst. Degree
Work Experience: Midlothian Auto - Mechanic - 1 yr.
Buckeye Pontiac - Mechanic - 3 yrs.
State Chevrolet - Mechanic - 3 yrs.
Trinity Chevrolet - Mechanic - 2 yrs.

OUTLINE

Student Awards and Competition

I. Introduction

- A. Teacher Experience in Trade Area
  - 1. Machine Shop
    - a. Incentive pay
    - b. Promotion
    - c. Management
  - 2. Cosmotologist
    - a. Incentive pay
    - b. Tips
    - c. Own shop

- B. My School Experience
  - 1. Maching Shop bolt
  - 2. Algebra class problems

- C. School Awards for Motivation
  - 1. Salesman awards
  - 2. Academic awards
  - 3. Athletic awards
  - 4. Vocational awards

II. Outstanding Student Awards

- A. Explain Award
  - 1. Student achievement
  - 2. Results
  - 3. Motivation of students

- B. History
  - 1. 1965 - Mr. Herbert
  - 2. Rotary
  - 3. Awards
  - 4. Gifts from Industry

- C. Program this year
  - 1. Lawn party
  - 2. Awards
  - 3. Presentations
  - 4. Speakers

- D. Plaques and trophies
  - 1. Discuss plaque
  - 2. Dineer
  - 3. Paper and pictures

III. V.I.C.A. Awards

- A. Club
  - 1. What
  - 2. Why
  - 3. Where

- B. Competition
  - 1. Local
  - 2. Statewide
  - 3. National

IV. Plymouth Trouble Shooting Contest
    A. The Contest
        1. What it is
        2. What it does
        3. Motivator
        4. Show awards

    B. Other contests
        1. Cosmotology
        2. Baking
        3. Sewing
        4. Canfield Fair

V. Conclusion
    A. Contests
        1. School
        2. Area
        3. National

    B. Discuss Selection Sheet Attached

* * * * *

Name: Mr. Don Aman 2
Address:
Phone:
Position: Teacher T & I Auto Body
Education: Timken H.S. - Kent State Univ.
Work Experience: Ewing Chevrolet - Body Man - 5 yrs.
Downtown Motors - Supervisor - 12 yrs.
Teaching Experience: Auto-Body and Related - 6 yrs.

OUTLINE

Student Motivation - Competition and Pride in Workmanship

I. Introduction

II. Competition Concept
    A. Responsibility
    B. Duties
    C. Results

III. Pride of Workmanship Concept
    A. Standards
    B. Customers
    C. Snapshots

IV. Student Research

V. Conclusion

* * * * *

Name: Carl B. McSween
Address:
Phone:
Position: Shop Foreman
Education: East High School - Cuyhoga Community College- Kent State Univ.
Work Experience: Fred L. Nelson - Tree Trimmer - 2 yrs.
Euclid Road Mach. - Fitter-Welder - 16 yrs.
Vi-Con Welding - Foreman - 1 yr.
Teaching Experience: Lake Co. Vocational - Welding - Related - 3 yrs.

OUTLINE

How I Used Competition and the Data Process Dept. in My School

I. Decided to set-up shop actual (teacher more of a "boss") working conditions - (In addition to practice PL'S after difficulties 1st year, lack of motivation,etc.
  - A. Job Shop
    - 1. Repair
    - 2. Special Items
  - B. Production Shop
    - 1. Baskets - Gas Weld
    - 2. Charcoal grills - Arc Weld
  - Show B.P.'s

II. Shop broken into code's indicating duties - H.O. Sheet "Job Duties"
  - A. 24 Jobs (Planned 24 Students)
    - 1. Jobs rotated weekly.
  - B. Explain jobs other than welding. Show B.P.'s
    - 1. This includes skills other than welding and trains students for this type work.

III. Prepared students by taking Field Trips. Show Photos. Shop Routine. Competition for jobs.
  - A. Student "ring-in" if welder he worked on practice PLT's (show job plan) and worked toward goal of qualifing to work on production items. C.G., L.B., etc. Process workers - submit quality cuts, etc. Practice P.C.'s.
  - B. Qualified workers - repair and special items.

IV. Use of Data Process - Since jobs were already in "code" simply assign monitary value according to skill. H.O. sheet "Data p."
  - A. Example - If student assigned at $3.00 hr. rate, he works 3 hrs. day - 5 days received 15 hrs. x 3 = $45.00 less deductions.

V. What This System Accomplished
  - A. Actual shop experience - ringing in, producing parts, doing rework, and meeting standards - quality and time.
  - B. Improved attendance - pay and interest.
  - C. Made money - sell of items.
  - D. Provided a personal record of student hrs.
  - E. Brought other Depts. in cooperation (as Drafting).
    - 1. Actual problems for Data Process.
  - F. Taught skill in more interesting manner.

* * * * * *

Name: Mr. John G. Schwarz, Jr.
Address:
Phone:
Position: Commercial Art Instructor
Education: Mansfield H. S., Ohio State Univ. B.S.E
Work Experience: Ideal Elec. & Mfg. Co. - Draftsman - 4 yrs.
Manchester Tools - Draftsman, Artist, Educator, 12 yrs. (part-time and summers).
Teaching Experience: Buchtel H. S. - 1 yr.; Ellet H.S. - 4 yrs.; Hower Voc.H.S. 10 yrs.

OUTLINE

Motivation

I. Introduction
  A. Motivation
    1. That which causes a person to act.
    2. Respond to information.
    3. Respond to imagination.
  B. Three General Areas
    1. The Teacher
    2. The Pupil
    3. The Subject Matter

II. Body
  A. The Teacher
    1. Negative
      a) Threaten
      b) Punishment (Spank, Sports, etc.)
      c) Expell from class
      d) Failure grades, etc.
      e) Bribes
        1) Grades
        2) Job
        3) College

BUT THE MOTIVATION IS FROM WITHIN

    2. Positive
      a) Must be interested
      b) Must be enthused
      c) Must be excited
      d) Must know the subject
      e) Must know students
        1) Background
        2) Language
        3) Hobbies and talents
        4) Interests and interest span

III. The Pupil
  A. Aroused Interest
    1. Awareness of everything (Use five senses)
      a) Hear
      b) See
      c) Taste
      d) Touch
      e) Smell

2. Ideas to
    a) Dream
    b) Wonder
    c) Think with example (sponge)
    d) Bring in other areas (math, music, drafting, etc.)
3. Examples of Past and Present
    a) Known and Unknown
4. Immagination
    a) Sameness
    b) Relatedness
    c) Opposites
    d) Variations
    (Creativity Enters Here)

IV. The Subject Matter
  A. Find
    1. New Facts
  B. Discover
    1. New Talents
    2. New Skills
  C. Experiment with
    1. Facts
    2. Skills
    3. Ideas

V. Summary
  A. The subject now becomes the natural means of expression or application - next, creativity.

* * * * * *

Name: Darrell Rice
Address:
Phone:
Position: Vocational Machine Trades Teacher
Education: Washington-Massillon H.S. - Kent State Univ.
Work Experience: Timken Roller Bearing - Helper - 1 yr.
Enterprise Aluminum - Machinest Tool & Die - 8 yrs.
Merlier Tool & Die - Machinest Tool & Die - 2 yrs.
Paumier, Inc. - Machinist Tool & Die - 2 yrs.
Electrical work in summers - 19 yrs.
Short tries at Farming, Logging, Heavy Machy. Mill Wright, Home Building and Trucking.
Teaching Experience: Washington-Massillon - Machine Trades 6 yrs.
Timken Vocational - Machine Trades 10 yrs.

OUTLINE

Films and Field Trips

I. Selection
  A. Efficient, Effective, Timely

II. Films
  A. Use

        1. Introduction of Film Topic
        2. Relate to your trade
        3. Announce quiz
        4. Project skillfully
    B. Follow-Up
        1. Quiz - discussion
        2. Repeat if you wish (next day)
        3. Relate to trade

III. Trips
    A. Like films, only more real
        1. 3 dimensional visual aid with sound, smells and textured floor
        2. Plan far ahead.
        3. Seek permission
        4. Prepare students what to expect
        5. Plan details
            a) Permission slips
            b) Transportation
            c) Parking
            d) Meals - Lodging
            e) Neat dress
            f) Safety glasses
            g) No Smoking
            h) Pay attention to guides
            i) Ask questions
            j) Send thanks
        6. Follow-Up
            a) Discussion
            b) Quiz
            c) Guest speaker

* * * * * *

Name: Jack Foster
Address:
Phone:
Position: Teacher
Education: Springfield H.S. - Akron U. and Kent State
Work Experience: Firestone Tire - Tool and Die Designer - 9 yrs.
Ohio Brass Co. - Draftsman - 5 yrs.
Babcock & Wilcox - Draftsman - 4 yrs.

OUTLINE

Homeroom Regulations

I. School hours 8:00 A.M. - 3:00 P.M.

II. 8:00 A.M. - School Begins

III. Tardy Bell 8:05

IV. All students are to be in their assigned seats when tardy bell commences. (no exceptions)

V. All homeroom tardiness will be made up to the satisfaction of the Assistant Principal.

VI. All absent excuses are due first or second day back in class - no later or the office will assess detentions.

VII. All students (or parents) are required to call the office in case of absence, no later than 9:30 A.M. of the day of absence, or detentions will be assessed.

VIII. Fire drill-close all windows-exit double file down southeast stairway to Bowery - stand in front of church - no talking.

IX. Disaster Drill - stand facing wall in corridor - no talking.

Class Regulations

I. Tardiness - be in your assigned seat when bell rings.

II. Detentions will be made up to the satisfaction of Assistant Principal, or teacher, depending who assigned that detention.

III. Fire drill pertains to class - same assigned station.

IV. Disaster drill - go back to your homeroom station.

V. All students are to have their own equipment - no borrowing.

VI. All paper will be furnished.

VII. No eating at any time.

Opening Day Procedures and

Student Personnel

I. Orientation of students
  A. Class procedure
  B. Student Personnel
    1. Selection
    2. Permanent record
  C. Discipline
  D. Grades

II. Equipment
  A. Pass out if issued by school
  B. If they are required to buy
    1. Handout
    2. When required

* * * * * *

Name: Mrs. Doris Glass
Address:
Phone:
Position: Teacher
Education: Canton-McKinley High School
Work Experience: Drs. Cain & Cain - Dental Assistant - 25 yrs.
Dr. R. D. Robeson - Dental Assistant - 7 yrs.

Teaching Experience: Timken Vocational High School - Dental Assisting - 5 yrs. Assisted with preparing Dental Assistants for Certification by conduction study classes under auspices of Dental Assistant Society.

OUTLINE

Records and Reports

Records and reports which are kept by the individual teacher throughout the school year.

I. Student Attendance Card
  - A. Information filled in by student
  - B. Check absence with pencil (if tardy, you may erase it)
  - C. Note reason for absence on reverse side of card

II. Register Sheet
  - A. Note any absence for student on this sheet daily.
  - B. Use first line for a claender
  - C. Total at end of each 6 week period.
  - D. Any withdrawals carry over to final 6 weeks at time of withdrawal

III. Daily Absence Slip
  - A. Note any student absent in your class whose name does not appear on morning bulletin

IV. Work sheet for Period Report
  - A. Total enrollment figured for each 6 weeks period.
  - B. Keep a copy of your figures and how you arrived at them

V. Period report
  - A. Transfer record from the work sheet to this report

VI. Grade card
  - A. Grades transfered from your grade book

VII. Cumulative folder
  - A. Personal data of student kept in this folder.
  - B. Add your remarks regarding student to his record.

Discussion with Dental Assistant Instructors and

Health Occupation Instructor

I. Lab Organization
  - A. Assign duties for housekeeping, materials, equipment, instruments, etc.
  - B. Rotate duties

II. Discipline
  - A. Mean what you say and say what you mean.
  - B. Do not get too "chummy" with student.
  - C. Keep you distance and respect.

III. Safety
    A. Electric outlets
    B. Gas for bunsen (use only when you are present)
    C. X-Ray equipment should have lock

IV. Security
    A. Issue rules regarding equipment first day.
    B. Parental permission obtained for any field trip.

V. Preparations for related lesson
    A. Materials, visual aids in readiness
    B. Prepare for questions
    C. Introduce new words
    D. Make note in daily lesson plan items used.

VI. Preparations for lab presentation
    A. Do the presentation yourself first before students arrive.
    B. Have all materials ready and see that everything is working
    C. Make the presentation -- ask for questions and repeat it.
    D. Have student participate and then do it on his own.

* * * * * *

Name: Anthony Agnello
Address:
Phone:
Position: Teacher - Electronics
Education: Ferndale H. S. - T & I Courses in College
Work Experience: Agnello's Service Center - Owner - 7 yrs.
National Radio Electronic School - Manager - 5 yrs.
Middletown Air Depot - Electrician - 5 yrs.
Teaching Experience: Bedford H.S. - Electricity - Electronics 3 yrs.
National Radio Electronic - All phases of Electronics - 12 yrs.
North American Aviation - Electricity - Aviation - 2 yrs.

OUTLINE

Lesson Planning

I. Definition of lesson planning.
    A. Teacher emphasis - The name of a statement of the things the teacher propose to do during the period he spends in class.
    B. Student Emphasis - A title given to a statement of what is going to be done (achievements to be realized), how things will be done during the time the class is in session with the teacher.
    C. Student-Teacher - The title given to a statement of the achievements to be realized and the specific means by which these are to be attained, as a result of the activities engaged in during the period the students and teacher work together.

II. Need for Lesson Planning
    A. Pre-requisite for success
        1. Planning engineer
        2. Builder
        3. The housewife
        4. Yourself
    B. The inexperienced teacher

1. It clarifies objectives
2. It leads to better methods of teachine
3. Difficulties may be avoided by anticipating them.
4. It installs confidence
5. It provides a plan for selecting and organizing procedures, activites, and content material.
6. It provides for definite assignments, availability of materials, and checking outcomes.

III. How to start
  A. Aims
    1. What is the student as a final product
  B. Block the trade
    1. Basic Electricity
    2. Basic Electronics
    3. Radio-TV servicing
    4. Industrial Electronics
  C. Lesson Plan
    1. Related - Radio Servicing
      A. Objectives and Student Outcome
        1) Tests
        2) Assignment sheets
        3) Information sheets
    2. Manipulative
      A. Construct - Test - Analyze
        1) Progress charts
        2) Job sheets
        3) Operation sheets
      B. Performance Test
  D. Appraisal Form

* * * * * *

Name: Donald L. Aman
Address:
Phone:
Position: Vocational High School Teacher
Education: Timken Voc. High School - Kent State Univ.
Work Experience: Ewing Chevrolet - Body man - 5 yrs.
Downtown Motors - Supervisor Foreman - 12 yrs.
Teaching Experience: Timken - Canton - Auto Body and Related - 6 yrs.

OUTLINE

Teacher Liability

I. Introduction

II. Job Hazards

III. Supervision

IV. Safety Program

V. Court Cases

VI. Forseeability of Instructor

VII. Resolution to OVA

VIII. Problems Committee

* * * * * *

Name: Charley B. Dygert
Address: 350 South Murray Hill Road, Columbus, Ohio 43228
Phone: 614/878-5856
Position: Supervisor of Apprenticeship Training & State Association Director for VICA Youth Activities for the Ohio St. Dept. of Education.
Education: Ogdensburg Free Academy, Ogdensburg, N.Y.
Ohio St. Univ. B.S. Ed. Currently Master of Arts program at Ohio St.
Work Experience: Ternstedt Div. of General Motors Corp. --- Tool and Die Journeyman.
Consultant Services for VICA
Teaching Experience: Instructor for Manpower Development and Training Tool and Die Apprenticeship Program in 1966.

OUTLINE

Leadership Development Conference

Ohio VICA Association

I. Reasons for Leadership Skills
  A. Preparation for adulthood (Must produce whole student)
  B. Student is product of the program.
  C. Youth sell vocational education, not adults.
  D. Preparation for leadership (Must accept role)
    1. Occupation (Job progress)
    2. Civic responsibilities
      a) Local government - Boards of Education
      b) PTA - etc.
  E. VICA is an inter-curricular activity
  F. Service Organizations (continue Leadership Development)
    1. Jaycees, Lions, Kiwanis, Rotary, Women's Clubs, League of Voters, etc.

II. Development of Leadership Skills
  A. Social Skill Development
    1. Banquets and social events
    2. Meeting people
      a) Forward approach (handshake)
      b) Remembering names and titles
    3. Acting as adults (maturity)
  B. Leadership Skills
    1. Parliamentary procedure
    2. Group Dynamics
    3. Public Speaking
    4. Listening abilities
    5. Self evaluation
    6. Courtesy
    7. Dress and conduct
    8. Humility

III. Philosophy of Education
  A. Divisions of Vocational Education
  B. Trade and Industrial Education
  C. Education Notables

IV. VICA - Local, State and National Organization
  A. Constitution and by-laws
  B. National Handbook
  C. Officer's Handbook
  D. Parliamentary Procedure Handbook

V. VICA Skills
  A. Learn Pledge
  B. Learn Motto - describes VICA
  C. Opening and Closing Ceremony

VI. Promote Idealogy of VICA
  A. Public Relations
  B. Relate VICA Story
  C. Demonstrate Pride in our Organization (Pride in T & I)

* * * * * *

Name: Warren C. Foley, Jr.
Address:
Phone:
Position: Dept. Chairman - John Hay High School
Education: Wadsworth Central H.S. - Kent St. Univ.-B.S. in Educ.
Work Experience: Atlas Powder Co. - Sample Collector - 2 yrs.
Goodyear Aircraft - Assembly - 5 yrs.
Firestone Tire & Rubber - Compounder - 5 yrs.
Comm. Service Center - Ass't. Boys Work Director - 4 yrs.
Self Employed - Designed - Lay out Draftsman - 20 yrs.
Teaching Experience: Rawlings Jr. High - Wood General Shop 11 yrs.
John F. Kennedy H.S. - Wood Shop - Drafting - 2 yrs.
John Hay H. S. - Drafting Dept. Chairman - 2 yrs.

OUTLINE

Unique Problems of the Inner City School

I. Types of Children you will teach and meet.
  A. Disadvantaged
  B. Emotional disturbed
  C. Juvenile deliquents (by your standards)
  D. Different morals and values
  E. Non-Readers - Vocabulary limitations - Hep talk.
  F. Age grade transfers
  G. Normal Youngsters
  H. The Dropout student.

II. Social Economic Background of your Student.
  A. Changing neighborhoods (causes - why's - concepts)
  B. Changing social patterns.
  C. Economics of the neighborhoods
  D. Student's Attitudes.
  E. Community influence, place for it.
  F. Family make-up.

III. What Teachers can do to stimulate Inner City Youth.
  A. Encourage self-confidence, self-expression and self-discipline.
  B. Arouse curosity by acceptance of some phase of "Hep" language, or culture.
  C. Putting the youngster at ease with you.
    1) Stereotype
    2) Middleclass
    3) Odd ball.
  D. Teacher attitudes
    1) How he sees himself, the students
    2) Teaching assignment
  E. Be yourself (Don't imitate others)

IV. Test and valuation for inner city schools.
  A. I'Q's Reliability - 70 through 90
  B. Types of Tests - Readiness
  C. Counseling Services of Inner City Youth

V. Developing Student Rapport.
  A. Meeting the class for the first time.
  B. Explain your program, course outline.
  C. Equipment and Supplies
  D. Grading System
  E. Attendance
  F. Sensitivity of the Teacher
    1) Current events
    2) Neighborhood gangs - influence
    3) Organizations about the school

VI. The School Curriculum for Inner City School
  A. What are you teaching
  B. Why are you teaching
  C. Revelancy of subject.

* * * * **

Name: John Vasko
Address: 365 Forest Ave., North Lima, Ohio 44452
Phone:
Position: Auto Shop Instructor
Education: Woodrow Wilson H.S. - Degree at General Motors Inst.
Work Experience: Midlothian Auto - Mechanic - 1 yr.
Buckeye Pontiac - Mechanic - 3 yrs.
State Chevrolot - Mechanic - 3 yrs.
Trinity Chevrolet - Mechanic - 2 yrs.
Teaching Experience: Choffin Vocational School - Auto Mech. - 7 yrs.
Vienna High School - Industrial Arts

OUTLINE

Preparation for Opening Day

I. Welcome new teachers to profession

A. My background
B. Teacher importance
C. Teacher Attitudes

II. Man's expanding knowledge
A. Chart on board 0 to 1969
B. Discuss handout
C. Tie into teaching vocational education

III. Getting acquainted
A. When to arrive
B. Be familiar with
1. Shop
2. Office help
3. Administration
4. Other teachers
C. Do you know?
1. Your assignments
2. School procedures
3. Records
4. Shop procedures

IV. Are you ready?
A. Plan ahead of time
1. Equipment and tools in good order
2. Visualize your class
3. Plan of work
4. Materials and Supplies
5. Plan of discipline

V. Conclude talk
A. Discussion topics
1. Tests
2. Books
3. Grading
4. Shop student personel
5. Shop patches and names
6. Safety
7. Finances
8. Parts pick up
9. Road testing
10. Tools and equipment
11. Shop layout

Discussion of above topics approximately two hours.

* * * * * *

Name: Charles Hunger
Address:
Phone:
Position: Associate Director, Audio-Visual Services
Education: Lorain H.S. - Kent St. Univ. B.S. Ed.
Work Experience:
Teaching Experience: Kent State University - Audio-Visual Education - 5 yrs.
Ravenna City Schools - Social Studies, Business - 4 yrs.
Ravenna Township School - Socail Studies, Business - 3 yrs.

OUTLINE

Educational Media Introduction and Utilization of Motion Pictures

I. Explanation of educational media classroom
  A. Philosophy behind facility
  B. Equipping typical classroom for media

II. Why use media?
  A. Comparison of home and school environment
  B. How students learn
  C. Communication problems
  D. Utilizing channels that are open
  E. Teacher options

III. Motion picture medium
  A. Discussion of media research with film medium
  B. Role of teacher when using film medium
  C. Showing and discussion of award-winning film, BIOGRAPHY of a BEE
  D. Teacher preparation, student preparation, showing, follow-up, and evaluation of film presentation.
  E. Discussion of catalog descriptions and teacher's guides for specific films.

IV. Summation

Selection, Preservation, and Utilization Techniques of Still, Picture Medium

I. Presentation of examples of free and inexpensive still pictures
  A. Sources of flat pictures
  B. Uses of flat pictures
  C. Advantages of flat pictures

II. Preservation
  A. Demonstration of dry mounting
  B. Demonstration of laminating
  C. Demonstration of picture lifting
    1. Review of preserving techniques
    2. Review by using 16mm and Super 8mm films

III. Utilization techniques

* ** * * * *

Name: Carl V. Gorman
Address: 944 Martindale Drive, Tallmadge, Ohio 44278
Phone: (216) 633-5719
Position: Director-Coordinator EPDA Project for the Preparation of T & I Instructors - State of Ohio
Education: Akron East High School, Kent State Univ. M.A.
Kent State Univ. M.Ed.
Leadership Development Intern Program Voc. Ed. State of Ohio
Work Experience: B. F. Goodrich Co. - apprenticeship - Machinist 1953-57
Journeyman Machinist - B. F. Goodrich - 1957-62
Director of Joint Vocational School in Northwest Ohio - EHOVE (Erie - Huron - Ottawa Vocational Education - 1-1/2 yrs.

Teaching Experience: Akron Public Schools - 1962-66

OUTLINE

Trade Analysis - Determining What to Teach

I. Definitions
   - A. Job
   - B. Operations
   - C. Step in Operation
   - D. Auxiliary Information
   - E. Cumulative Nature of Operations
   - F. Custom and Service Occupations
   - G. Block
   - H. Related Topics
   - I. Block Base
   - J. Course of Study
   - K. Course Outline
   - L. Curriculum

II. Identifying Operations
   - A. Expressing an Operation
   - B. Criteria for Teaching an Operation

III. Identifying Related Information
   - A. Difference between related information and related subjects.
   - B. Kinds of related information
     - 1. General
     - 2. Technical
     - 3. Guidance
   - C. Outlining Informational topics

IV. Making the Analysis
   - A. Major Phases of Analysis
   - B. Blocking An Occupation
   - C. Securing An Instructional Order
   - D. Securing an Instructional Order
   - E. Checking Levels in Instruction
   - F. Frequency Chart Development

V. Use of Analysis in Course of Study Development
   - A. Development of Jobs from Elements
   - B. Criteria for Selecting Jobs
   - C. Vehicles of Instruction
   - D. Arranging Information Topics

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Name: Robert Yoder
Address:
Phone:
Education: Steubenville H. S. - Malone College - B.S.
Kent State Univ. - M.S.
Work Experience: Bob's Studio - Owner - 10 yrs.
Position: Supervisor, Materials Preparation - Kent State Univ.
Teaching Experience: Marlington - Sixth Grade - 4 yrs.
Louisville - Fifth Grade - 1 yr.

OUTLINE

- I. Overhead Transparency
  - A. Introduction
    - 1. Equipment
    - 2. Operation
  - B. Hand Made
    - 1. Materials
    - 2. Processes
    - 3. Techniques
    - 4. Problems
    - 5. Do's
    - 6. Don'ts
  - C. Thermal Transparencies
    - 1. Master
    - 2. Types of Film
    - 3. Techniques
    - 4. Operation of Equipment
    - 5. Manipulation
    - 6. Adding Lettering
    - 7. Adding Color
  - D. Disclosure
    - 1. Slide
    - 2. Barndoor
    - 3. According Fold
    - 4. Overlay

- II. Filmstrip and 2 x 2 Slides
  - A. Filmstrip
    - 1. Selection
    - 2. Types
    - 3. Projection Equipment
    - 4. Projection Operation
    - 5. Utilization
    - 6. Techniques
  - B. 2 x 2 Slides
    - 1. Utilization
    - 2. Standard cameras
    - 3. Instamatic line
    - 4. Visualmaker kit
    - 5. Copying Techniques
    - 6. Automatic Projection
      - a. Stereo Recorder
      - b. Sensing Tape
      - c. Monoral Recorder

III. Workshop
    A. Kit of Material
        1. 4 Clear Acetate Sheets
        2. Blaisdell Projection Marker
        3. Two - 127 3M Film
        4. One - 129 3M Film
        5. Four - Overhead Frames
        6. Two - 11 x 14 Mountboard
        7. One - 8 x 10 dry mount tissue
        8. One - 8½ x 11 laminating Film
        9. Two - 4 x 5 Color Adhesive film
        10. Dry Transfer letters
    B. Materials Produced
        1. Dry mount tear sheet
        2. Laminate tear sheet
        3. Lift
        4. Thermal Transparencies
        5. Handmade Transparencies
        6. Mounting Transparencies
        7. Dry Transfer Lettering
        8. Color Transparencies

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Name: Orlan C. Miller
Address:
Phone:
Position: Welding Instructor
Education: New Philadelphia H.S. - Kent St. Univ.
Work Experience: Warner & Swasey, Welder-Fitter - 12 yrs.
Teaching Experience: New Phila. - Welding and Related Subjects - 2 yrs.

OUTLINE

Motivation

I. Wages
    A. Starting salaries

II. Help Wanted Ads
    A. Put on bulletin boards

III. Instand Lesson Plans
    A. Movies
    B. Tours
    C. Speakers

IV. Be Human
    A. Listening
    B. Counseling

V. Progress Charts

VI. Teacher Conduct

VII. Embarrassment

* * * * * * *

Name: Roger Myers
Address: 604 Broad Ave. N.W.
Phone:
Position: Teacher
Education: Canton Timken H.S. - Kent St. Univ. B.S. Ed., ME.Ed.
Work Experience: Hawley, Pressman, 7 yrs. - Myers Prtg.Owner 3 yr. Towne Printing Foreman, 3 yrs.
Teaching Experience: Hower Voc. - Printing - 7 yrs.

OUTLINE

Shop Organization

I. Introduction

II. Lab Organization
   - A. Equipment & Materials
   - B. Curriculum
   - C. Records for evaluation and information
   - D. Analysis and change of programs
   - E. Student personnel
   - F. Personal evaluation

III. Discipline
   - A. Authoritarian - Teacher Directed
   - B. Democratic - self-directed
   - C. Laissez faire - non-directed

IV. Resource Material
   - A. Colleges
   - B. Local companies
   - C. Manufacturers and suppliers
   - D. Audio-visual manufacturere
   - E. Graphic Arts technical foundation

V. Safety
   - A. Teacher's responsibility
   - B. Student's responsibility
   - C. School's responsibility

VI. Related Class Lesson
   - A. Preparation
   - B. Presentation
   - C. Application
   - D. Evaluation

VII. Lab Demonstration
   - A. Preparation
   - B. Presentation
   - C. Application
   - D. Evaluation
      - 1. Analyze
      - 2. Diagnosis
      - 3. Prescribe

* * * * * *

Name: Mrs. Walter R. Brannon, Jr.
Address: 1176 Dussel, Kent, Ohio 44240
Phone:
Position: Instructor Cosmetology Lab & Related
Education: Hower Vocational H.S. - Attended KSU.
Work Experience: Hister's Studio, Lucille Cato's, Vernon's Studo, Total 14 yrs., Managing Cosmetologist
Teaching Experience: Hower Voc. - Cosmetology - 1 yr.
Garfield H. S. - " - 3 yrs.

OUTLINE

Student Motivation

What is Motivation?

I. Good Organization
A. Confidence
B. Respect
C. Maturity

II. Discipline
A. Too informal
B. Avoids carelessness

III. Competition
A. Between local schools
B. Between students
C. State VICA Contests

IV. Keeping teacher motivated (informal)
A. Attend trade shows
B. Invite students to trade shows
C. Subscribe to trade journals
D. Plan field trip
E. Have outside speakers.

V. Make students earn lab working privileges
A. Put them in charge and make them responsible.

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Name: Stan O'Connor
Address: 3047 Lomae Drive, Akron, Ohio
Phone:
Position: Diversified Cooperative Training Coordinator
Education: East Tech, Cleveland H.S., K.S.U. B.S. Ed., K.S.U. Graduate Student
Work Experience: Cleveland Printing Co. Apprentice Printer 5 yrs.
Allied Decals, Inc. Pressman and Supervisor - 3 yrs.
Goodyear Aerospace Corp. Quality Control and Tech. Service 9 yrs.
Teaching Experience: Hudson H. S. - Occupational Information- 1 yr.
North Royalton H.S. - D.C.T. Coordinator - 1 yr.
Medina H. S. - D. C. T. Coordinator - 1 yr.

OUTLINE

Conference Leadership

I. Introduction of Conference Leadership as a Teaching Method.
   A. Definition of a Conference
   B. Definition of Conference Leadership
   C. Uses of the Conference Method

II. Application of Conference Leadership as a Teaching Method
   A. In the pre-service workshop
   B. In the classroom and shop

III. Conducting a conference
   A. Physical setting
   B. Selection of participants
   C. Duties of a Conference Leader
      1. Introduction
      2. Drawing out
      3. Acceptance
      4. Summary

IV. Evaluation of Conference

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Name: Thomas E. Hyde
Address: 2015 Washington Blvd., N.W., Canton, Ohio 44709
Phone: 492-6553
Position: Teacher-Educator - KSU
Education: Canton Lincoln, 1953 H.S.- Georgia Ins. of Tech. 200 quarter hours (Sr.) Mech. Eng. - B.S. Ed. KSU, 1964, M.E. 1967 KSU.
Work Experience: Timken Roller Bearing Co. co-op draftsman 44 mos.
Ashland Oil - general labor - 4 mos.
Timken Roller Bearing Co. Supervision of 10 draftsmen, 40 mos.
Teaching Experience: Canton Public Schools 3-1/2 yrs. Teacher-Coordinator
Kent St. Univ. 1/68 to present Teacher-Educator

OUTLINE

Help for Discussion Periods

I. Types of Questions

   A. Leading questions
   B. Factual - why? where? when? who? how?
   C. Alternative
   D. Ambiguous
   E. Controversial
   F. Provacative

II. Handling individuals
   A. Talks too much
   B. Quick and helpful
   C. Rambler
   D. Arguer
   E. Off the beam
   F. Obstinate
   G. Poor talker
   H. Definitely wrong

Questioning Techniques

I. Why questions are used in related classroom
  1. To discover interest, abilities and knowledge
  2. Arouse interest
  3. Review and summarize
  4. To assist student with problems
  5. To test

II. Important points to remember when using questions
  1. Encourage students to speak so all can hear
  2. Use correct grammar
  3. Use simple words
  4. Stay with subject
  5. List important questions
  6. Questions should be thought provoking.
  7. Ask question - pause, then name student
  8. Insist on individual response
  9. Never ask questions in rotation
  10. Call on all students
  11. Fit questions to individuals
  12. Allow students to remain seated
  13. Do not give answers by voice or facial expression
  14. A good question has a purpose
  15. Structure question around one idea
  16. Begin question with what, when, why, where, how.

III. Four General Classifications of Questions
  1. Overhead - Teacher Initiated
  2. Direct - Teacher Initiated
  3. Reversed - Student Initiated
  4. Relayed - Student Initiated

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Name: D. W. Hogan
Address:
Phone:
Position: Associate Professor - Kent St. Univ.
Education: Ashtabula H.S. - Miami M.Ed. KSU
Work Experience: Pheonix Iron Works, App. Machinist 2½ yrs.
Y & O Coal Co. - Machine Shop 3 yrs.
Gerry Boiler Works - Machine Shop 2 yrs.
Teaching Experience: Amsterdam H.S. - Ind. Arts 6 yrs.
Ashtabula H.S. - Machine Related, Ind. Arts 10 yrs.

OUTLINE

The Techniques in Putting Over a Demonstration

I. Introduction

II. When to use the demonstration
  A. Manipulative operations
  B. Principles or Theories of Operation

III. How to Conduct a Demonstration
    A. Careful Planning
        1. All necessary tools and equipment
        2. Arrange students so they can see and hear
        3. Follow a written lesson plan
        4. Demonstrate one operation at a time
        5. Do not add unnecessary information
    B. Be alert to your class
        1. Maintain proper position
        2. Talk and demonstrate to class
        3. Check frequently to make sure all students understand
        4. Encourage students to ask questions after each manipulative step.
        5. Use visual aids
        6. Summarize at the close of each demonstration
        7. If there are many steps in operation, break it down
    C. Show and explain at same time
        1. Plan and arrange demonstration to run smoothly
        2. Emphasize key points
        3. Set high standards for students
        4. Emphasize safety.
IV. Self Evaluation as an Instructor

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Name: T. Chulik
Address:
Phone:
Position: Teacher Educator
Education: Youngstown South H.S. - Youngstown B.S. - Kent B.S. Ed.
Work Experience: McKay Machine, Engineer, 2 yrs. - Herr Equip. Drafting 2 yrs.
Commercial Sitearing, Sales Engr. 8 yrs.
Teaching Experience: Cloverleaf, Drafting, 1 yr. - Hower, Drafting, 4 yrs.

OUTLINE

Certification of Trade and Industrial Instructors

I. Introduction

II. Responsibility for Certification

III. Statement of Policy

IV. Certification procedures

V. One week pre-service workshop
    A. One-year vocational certificate
    B. Final renewal
    C. Second and third renewal
    D. Those completing fourth one-year vocatinnal certificate

VI. Six Week Pre-Service Workshop
    A. One year vocational certificate
    B. First renewal

VII. Credit
    A. State certification
    B. College credit

VIII. Registration procedures
  A. College credit
    1. Admission to university
    2. Official registration for courses
  B. State certification
    1. Registration with the Dept. of Vo. Ed.
    2. Register with Teacher Educator
  C. 4 Year provisional certificate
  D. 8 Year professional certificate
  E. Permanent vocational T & I certificate

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Name: Mr. William Breitenback
Address: 479 Narragansett Dr., Tallmadge, Ohio 44278
Phone:
Position: Instructor Machine Shop
Education: Hower Voc. J.V.S. - Akron U. and Kent State
Work Experience: Goodyear Tire - Machinist - 6 yrs., Goodyear Aerospace - Machinist - 1 yr., Akron Selee- App. Diemaker - 18 mos., Mechanical Mold - Machinist - 1 yr., McNeil Corp. - Machinist - 18 mos., B & W - Machinist, - Akron Pressform - Labor Trainer - 2 yrs. Others - Total 13 yeras in Industry
Teaching Experience: Hower Vocational - Machine Shop & Related Subjects 29 yrs.

OUTLINE

Teacher Responsibility for Job Placement

I. Tips to beginners in Machine Shop
  A. Rules and Regulations
  B. Shop Procedure

II. Security
  A. Tools
  B. Records

III. Discipline
  A. Rules
  B. Counseling

IV. Testing
  A. Kinds
  B. Grading
  C. Making

V. Lab Organization
  A. Atmosphere
  B. 4-Step procedure
  C. Lesson plans

VI. Applied Technology
  A. Subjects
  B. Time allotment
  C. Grading system
  D. Attendance record

D-3 Consultants Detailed Resume and Topical Outlines - The Ohio State University

EPDA PROJECT
For the Preparation of Trade and Industrial Education Teachers
The Ohio State University

Consultant Personal Date and Outlines of Presentation

Name: Ralph Neal
Address: 91 Kingston Ave., Grove City, Ohio
Phone: 875-3948
Position:
Education: Martins Ferry H.S. - B.S. Ed. Kent State - M.A. Ed. Ohio State
Teaching Experience: 3 yrs. Lancaster Ohio High School, Machine Trades
8 yrs. Martins Ferry, Ohio High School, Machine Trades
4 yrs. State Dept. of Education, Consultant, Apprentice Training
2 yrs. State Dept. of Education, Supervisor, T & I Education
Work Experience: Machinist - Wheeling Steel - 1929-1952

OUTLINE

Local School Organization as it relates to the Vocational Trade and Industrial Shop and Related Instructor

- I. Secondary School Philosophy of Education
  - A. State Philosophy
  - B. Vocational Philosophy
  - C. Personal Philosophy

- II. School Organization
  - A. General Plan
    - 1. Board of Education Personnel
    - 2. Superintendent of Schools
    - 3. Supervisor of Curriculum
    - 4. Principal
    - 5. Department Head
  - B. Small Size School
    - 1. Lines of Authority
    - 2. Teachers Relative Position
  - C. Medium Size School
    - 1. Lines of Authority
    - 2. Building Principals Responsibility
    - 3. Vocational Supervisors Responsibility
    - 4. Teachers Relative Position
  - D. Large Size School
    - 1. Lines of Authority
    - 2. Vocational Directors Responsibility
    - 3. Vocational Supervisors Responsibility
    - 4. Building Principals Responsibility
    - 5. Teachers Relative Position

- III. School Policy
  - A. Development
    - 1. Board of Education
    - 2. Superintendent
    - 3. Building Principal
    - 4. Director or Supervisor (Vocational)

- 5. Department Head
- 6. Teacher
- B. Areas of Policy
  - 1. Teacher
    - a. Additional In-School Activities
    - b. Personal Conduct in and out of school.
  - 2. Pupil
    - a. In-Class Conduct
    - b. Out of class conduct
    - c. Out of school conduct
    - d. Discipline
  - 3. Program
    - a. Course of Study
    - b. Equipment Maintenance
    - c. Equipment Purchase
    - d. Supply Purchase and Control
    - e. Courtesy Jobs
      - 1) Other Faculty Members
      - 2) Community and Individuals
  - 4. Student Activities
    - a. Clubs (VICA)
    - b. Funds
    - c. Field Trips
    - d. Evening meetings
    - e. In-School Club Meetings
  - 5. Community Relations
    - a. Personal Contacts
    - b. School Loyality
      - 1) In-house information
      - 2) School
      - 3) Administration
      - 4) Faculty
  - 6. Student Selection

- IV. Faculty Relations
  - A. In-school Organizations
    - 1. CTA-OEA
    - 2. A.F. of T.
    - 3. Boiler Room Politics
    - 4. Lunchroom Politics
  - B. Professional Organizations (Vocational)
    - 1. OVA
    - 2. AVA

- V. Summation and Conclusions - The teacher is:
  - A. A single unit of a total process of education.
  - B. A Father-Brother Image (Mother-Sister Image)
  - C. A Confidant
  - D. A master of a skill
  - E. A master teacher
  - F. A friend
  - G. An organizer
  - H. A genius
  - I. An arbritrator
  - J. A loyal worker
  - K. A just referee
  - L. An advisor
  - M. A giver of unlimited time

Question and Answer Session If Time Permits

Name: John Irvine
Address: 6720 Red Fox Road, Reynoldsburg, Ohio
Phone:
Position: Supervisor, Trade and Industrial Education
Education: Cedarville, Ohio High School, B. S. Wilmington, M.A. Ohio State
Teaching Experience: 6 yrs. Columbus, Ohio - Industrial Arts
1 yr. Hamilton Township - D.C.T. Coordinator
3 yrs. Eastland J.V.S. - Supervisor
Work Experience: 1 yr. Oliver Corp. - Machine Trades
3 mos. Frigidaire - Machine Trades
4 yrs. U.S.Army - Crypto Operator

OUTLINE

Discipline

I. Film - "Maintaining Classroom Discipline" - 14 minutes
   A. Evaluation of Film

II. Role Play Technique
   A. Four High School Students Portraying Some Forms of Classroom Problems.
   B. Beginning Teachers to Try to Solve These Types of Problems.

III. Case Studies
   A. Problems from Teachers in the Field.
   B. Beginning Teachers to Come with Solution.

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Name: Richard Johnston
Address: 659 Stinchcomb Drive, Columbus, Ohio
Phone:
Position: Teacher Educator
Education: Hirsch High School, Chicago
B.S. - M.S. - Chicago State College
Teaching Experience: 10 yrs. East Aurora High School - Machine Trades
4 mos. Waubonsee Junior College - Adult Technical
Work Experience: Acme Steel - 3 yrs. - Tool Engineer
Goss Printing - 4 yrs. - Machinist
G & W Electric - 1 yr. Turret Lathe Operator
Verson Steel - 2 yrs. Apprentice Machinist

OUTLINE

Questioning Techniques

I. Importance of the Question

II. Types of Questions
   A. Overhead
   B. Direct

III. Questioning in Four-Step Lesson
   A. Motivation

1. Arouse curiosity
2. Focus attention on aim
3. Create interest

B.. Presentation
  1. Recall past experiences
  2. Direct thought
  3. Stimulate thought
  4. Develop concepts

C. Application
  1. Develop use of knowledge
  2. Promote understanding
  3. Make use of things learned

D. Testing
  1. Emphasize highlights
  2. Help retain knowledge
  3. Crystalize thought

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Name: George Kosbab
Address: 2510 Regina Avenue, Columbus, Ohio
Phone: 276-5893
Position: Consultant - Testing and Research O.S.U.
Education: Sandusky High School, Sandusky, Ohio,
B.S. Ed. and M.A.
Teaching Experience: 4 yrs. Hilltonia Jr. High School, Columbus - Industrial Arts
4 yrs. O.S.U. Columbus, O. - Testing and Research Consultant
Work Experience: 2 yrs. - Carpentry and millwork
1 yr. - Westinghouse - Appliance Repair

OUTLINE

Testing -- An Overview

I. The Ohio T & I Achievement Test Program
  A. Purpose
  B. History and Growth
  C. Test Construction and Standardizing Procedures
  D. Utilizing Test Results
    1. Hypothical Case
    2. Percentile Norm Sheets
  E. Supervisor - Instructor Conference
  F. Research Studies

II. Terminology (handout)

III. Achievement Tests
  A. Instructional Tests (quiz)
  B. Mastery Tests (final exams)
  C. Measurement Tests (standardized)
  D. Characteristics of a Good Test

        1. Validity
        2. Reliability
        3. Objectivity
        4. Discrimination
        5. Comprehensive
        6. Useability

IV. The Major Characteristics of Essay and Objective Tests
    A. Characteristics (handout)
    B. Sample Tests (handout)

V. Constructing Test Items
    A. Personal Reading
    B. Grouped by Trade Areas
    C. Test Question Card File by Basic Instructional Units

* * * * *

Name: Charles B. Buffington
Address: 85 Daleview Drive, Westerville, Ohio 43081
Phone: 882-1944
Position: Graduate Laboratory Assistant
Education: Riverside High School, Riverside, California
B.A., Mexico City College - M.A., Univ. of the Americas, Mexico City
Teaching Experience: 1 yr. Secondary Virginia - Spanish and English
4 yrs. Otterbein College - Spanish, Literature, Language
Work Experience: 1-1/2 yrs. Teaching Adis Lab, O.S.U.

OUTLINE

Audio Visual Aids

July 24, 1969

I. Demonstration and discussion of portable video-tape recorders by Mr. Dean Cannon

II. Film: "Visual Aids"
    A. Discussion

III. "Resources for Film Materials" by Mrs. Vivien Hindman (handout).

IV. Film: "We Use Word Power"

V. Demonstration and operation of audio-visual equipment. Five groups - five teachers in each group - will spend one-half hour with each of the activities listed below.

VI. Activities
    A. Telelecture (amplified telephone), opaque projector, film strip projector, and 8mm single-concept projector.

   B. 16 mm sound motion picture projector (manual threading)
   C. Sound-filmstrip projector (view of 15 min. sound-filmstrip on programmed learning)
   D. Audio-tape recorders
   E. Didactor and carousel slide projector

VII. Review and discussion of previous day's activities.

VIII. Film: "Projecting Ideas on the Overhead Projector"

IX. Mr. Jack Grove, Rep. of 3-M Visual Products, demonstrating the utilization and production of materials for the overhead projection system.

X. Distribution and discussion of overhead transparency packets by subject matter speciality (teachers will be grouped by subject fields.)

XI. Individual production of overhead transparencies.

XII. Review of activities.

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Name: Carl V. Gorman
Address: 944 Martindale Drive, Tallmadge, Ohio 44278
Phone: 633-5719
Position: Director-Coordinator EPDA Project for the preparation of T & I Instructors - State of Ohio
Education: Akron East High School, Kent State Univeristy B.S.
Kent State University M. Ed.
Leadership Development Intern Program Voc. Ed. State of Ohio
Teaching Experience: Akron Public Schools, 1962-66 - Vocational Machine Shop
MDTA, 1965-66 - Akron Public Schools
Kent State Univ. - 1968 to present - Teacher Educator
Work Experience: B.F.Goodrich Co. - apprenticeship - Machinist 1953-57
Journeyman Machinist - B.F.Goodrich - 1957-62
Director of Joint Voc. School in Northwest Ohio EHOVE (Erie - Huron - Ottawa Vocational Education - 1-1/2 yrs.

OUTLINE

Trade Analysis - Determining What to Teach

I. Definitions
   A. Job
   B. Operations
   C. Step in operation
   D. Auxiliary Information
   E. Cumulative Nature of Operations
   F. Custom and Service Occupations
   G. Block

- H. Related Topics
- I. Block Base
- J. Course of Study
- K. Course Outline
- L. Curriculum

II. Identifying Operations
- A. Expressing an operation
- B. Criteria for teaching an operation

III. Identifying Related Information
- A. Difference between related information and related subjects
- B. Kinds of related information
    1. Technical
    2. General
    3. Guidance
- C. Outlining Informational topics

IV. Making the Analysis
- A. Major phases of analysis
- B. Blocking an occupation
- C. Securing an Instructional Order
- D. Checking levels in instruction
- E. Frequency chart development

V. Use of Analysis in Course of Study Development
- A. Development of Jobs from Elements
- B. Criteria for selecting jobs
- C. Vehicles of instruction
- D. Arranging information topics

* * * * *

Name: Ed Davis
Address: Box 228, Route 4, Bellaire, Ohio 43906
Phone:
Position: Drafting Instructor
Education: Bellaire High School
Attending Ohio Univ.
Teaching Experience: 3 yrs. Martins Ferry - Drafting
Work Experience: Drafting and Surveying - 16 yrs.

OUTLINE

Related Class Planning

Related Instruction - Correlation
Objective -
1. To define related subject; math. and science.
2. To teach methods of correlation.

I. Related Technology
  A. Involves the tech. aspects of various portions of lab.
  B. Involves the principles, practices, problems (Related Math.), General History, Guidance (Attitude, Appearance, Job Placement.)

II. Correlation
  A. Tying together the related theory of the trade with the manipulative instruction.
  B. Learner should know:
    1. Why we are learning a particular area.
    2. When and how it will be used.
    3. New terms, definitions, various methods of performing new skills.

III. How does correlation take place?
  A. Catalogue of skills to be taught.
  B. Knowledge to be taught.
  C. Breakdown into operations.

Individualized Instruction
Objectives -
1. To define the difference between homogeneous and individual instruction.
2. To introduce the various methods of presenting related math and related science.

I. Define "Homogeneous Instruction"
  A. All learners taught in identical manner
    1. Same speed
    2. Same technique
    3. Same ending
    4. Regardless of comprehension, etc.
  B. Some assumptions under this type of instruction made by instructor.
    1. That every member of class is at the same stage of understanding and proficiency.
    2. That a single type of stimulation will be equally effective for all members of group.
    3. That interest of all members of class can be aroused by the same method.
    4. That all can receive the presentation of the new learning elements with equal ease and understanding.
    5. That all can learn in same length of time.
    6. That same amount of assistance is needed by each member of class and at same time.
    7. He assumes that the new learning elements of a lesson can be mastered be all members of a class with same amount of practice.

II. Class room demonstration
  A. To sharpen a tool bit, to replace paper in machines.

III. Illustrated Lectures
  A. Chalkboard - ex. cancel nines when multiplying.

IV. Resource Personnel
  A. Factory Representatives
  B. Factory maintenance men.

V. Directed Study
A. Text Book
B. Information sheets, etc.

VI. Panel Discussions

VII. Oral and written reports

VIII. Lectures

IX. How the subject of related math be presented?
A. Film and film strips
B. Illustrated Lectures (Chalk board)
C. Overhead Projector
1. ex. Logs of Problems
D. Directed Study (Text book)
1. Learners solve problems at own rate of speed
2. Permit groups to work together
a. Fast learner with fast learner
b. Instructor with slow learner (Do not neglect fast learner)
c. A fast learner with a slow learner. (Sometimes this situation achieves more than an instructor)
3. Answer Book System
a. Permit free access to answer book
b. Usually met with enthusiasm of learners
c. Used not to check answers to learners problems, but to check procedures.

* * * * *

Name: Frank Oliverio
Address: 1444 Cottonwood Drive, Columbus, Ohio
Phone:
Position: State Supervisor of Trade and Industrial Education
Education: Monongah, West Virginia High School; A.B. Fairmont St., W. Va.; M.A. West Virginia Univ.
Teaching Experience: 1 yr. Fairmont Jr. H.S. West Virginia - Industrial Arts.
1 yr. Miller Jr. High School, West Virginia - Industrial Arts.
1 yr. Woodrow Wilson H.S., West Virginia - Industrial Arts
1 yr. Ocean City, Maryland H.S. - Industrial Arts
6 yrs. Tiffin, Ohio - D.C.T. Coordinator
2 yrs. Ohio St. Univ. - Teacher Educator
5 yrs. Ohio St. Dept. of Education - Asst. Supervisor of T & I Educ.
Work Experience: Painter, 3 mos. - Draftsman, 3 mos. - Maintenance, 14 mos. - Decorator, 5 mos. - Labor 3 mos.

OUTLINE

Types of Trade and Industrial Education Programs

I. In-school Preparatory Classes

  - A. Trade areas
  - B. Length of Program
  - C. Time Schedule

- II. Cooperative Preparatory and Work Experience
  - A. Students Serve
  - B. Schools Served
  - C. Industries Served
  - D. Time Schedule

- III. Adult Vocational Programs
  - A. Pre-employment
  - B. Supplemental
  - C. Apprentice

* * * * *

Name: Robert M. Reese
Address: 298 West South St., Worthington, Ohio 43085
Phone: 885-5254
Position: Chairman, Academic Faculty for Vocational-Technical Education, The Ohio State University
Education: Plain City, Ohio H.S. - B.S. Education M. Ed., Ph.D.
Teaching Experience: 2 yrs. Newark, O. H.S. - Machine Trades
5 yrs. Connersville, Ind. - Dir. of Voc. Ed.
3 yrs. Indiana - Asst. Supervisor - War Production Training
9 yrs. Ohio State Supervisor - T & I Education
15 yrs. Ohio State University, Director of T & I Ed.-College of Ed.
Work Experience: 6 yrs. Industrial Plants, Columbus and Newark, Ohio.
Assistant Chief Engineer (Owens-Corning) - 2 yrs.
Consultant to many firms and school systems.

OUTLINE

Principles of Trade and Industrial Education

- I. Purpose and Scope
  - A. Development of Skill
  - B. Development of Related Technical Knowledge
  - C. Development of Related Occupational Information

- II. Prosser's Theorems
  - A. Copy to Each Participant
  - B. Explanation of Each Theorem and Its' Application to Vocational Teaching

* * * * *

Name: James A. Provost
Address: 179 Sinsbury Drive, Worthington, Ohio 43085
Phone: 885-0213
Position: Teacher Educator, E.P.D.A. Ohio State Univ.
Education: East Liverpool, Ohio H.S. - B.S. in Ed., M.E. in Ed. Bowling Green State Univ.
Teaching Experience: 3 yrs. Liberty Township - Industrial Arts
1 yr. Brandon, Fla. - Physical Education
4 yrs. Webster Township - Executive Head
4½ yrs. Eastwood - School Administrator
2½ yrs. State Dept. of Ed. Ohio - Consultant, School Bus Driver Training
4 yrs. Ohio State University, Teacher Educator
Work Experience: Pointing Machine Operator - Pitts. Cruc. Steel - 2 yrs.
Building Trades General Work Experience - 1 yr.
Electrician - Residential Wiring - 4 yrs.

OUTLINE

Instruction Sheets

I. Types
  A. Information
  B. Assignmant
  C. Job
  D. Operation
  E. Job Plan

II. Individualized Instruction Sheets
  A. Each student can progress at own rate
  B. Teacher can be released to help slower students or students who need assistance.
  C. Manufacturers and suppliers provide valuable instruction sheets.

III. Application of Instruction Sheet
  A. Each teacher was to fill out or make a copy of each type of instruction sheet.

Four Step Method of Instruction

I. Approved Method of Instruction
  A. Explanation of Laws of Learning
  B. Versatility of Four-Step Method

II. Demonstration of Sign Writer's Cup
  A. Ineffective Telling and Showing Demonstration
  B. Effective Telling and Showing Demonstration

III. Explanation of Each Step
  A. Preparation
  B. Presentation
  C. Application
  D. Testing or Evaluation

Lesson Plan Development

I. Reasons for Lesson Planning
   A. Plan your work - work your plan.

II. Elements of a Lesson Plan
   A. Lesson Title
   B. Objectives
   C. References
   D. Visual Aids
   E. Tools and Materials
   F. Safety
   G. Preparation
   H. Presentation
   I. Application
   J. Testing

III. Development of Lesson Plan
   A. Demonstration - "Lifting a Heavy Object"
   B. Participants Develop Lesson Plan from Demonstration

* * * * *

Name: Lou Gross
Address: 1228 Cambridge Blvd.,,Columbus, Ohio 43212
Phone:
Position: Electronics Instructor
Education: Columbus West H.S. - Attending Ohio State Univ.
Teaching Experience: 15 mos. Ohio Technical College - Electronics
36 mos. Trenton Technical Institute- Radio-TV Electronics
32 mos. Spring Garden Institute - Electricity
48 mos. Southwestern City Schools - Electronics
Work Experience: Electronics Supervisor - 7 mos.
Television Technician - 2 mos.
Senior Chief Electronics - 240 mos.
Service Technician - 6 mos.

OUTLINE

Qualities of a Good Instructor

I. Competence in Subject Being Taught
   A. Experience in the Skills of the Trade
   B. Experience in the Technologies of the Trade

II. Learn to Master Techniques of Instruction
   A. Speak Clearly
   B. Organize Instruction
   C. Demonstrate Skillfully
   D. To Evaluate Instruction

III. Enthusiasm for Teaching

IV. Develop Good Personal Relations
   A. Students
   B. Other Teachers
   C. Administrators
   D. Community and Parents

* * * * *

Name: Patricia Rutherford
Address: 1219 Carolwood Avenue, Columbus, Ohio 43227
Phone:
Position: Cosmetology Instructor
Education: Somerset H.S. - Capitol Beauty School
Teaching Experience: 4 yrs. Paul Hayes Technical School - Cosmetoloty
Work Experience: 29 mos. Cosmetologist - 127 mos. Shop Manager (Beauty Shop)

OUTLINE

Maintaining Student Records

I. Importance of Keeping Records

II. Attendance Records

III. Grading Records

IV. Progress Charts
  A. As a Stimulus or Motivator
  B. Records at a Glance
  C. Check on Student Accomplishment
  D. Show Examples of Progress Chart

* * * * *

Name: David Bailey
Address: 609 East Main Street, McConnelsville, Ohio 43756
Phone:
Position: Electronics Instructor
Education: Malta and McConnelsville H.S. - DeVry Institute - Diploma
Attending Ohio University
Teaching Experience: 2 yrs. - Morgan Local-Electronics
Work Experience: Electrician - 26 mos.; Electronic Tech. 47 mos. - Broadcast Engineer 18 mos.

OUTLINE

Television Teaching

I. Definition of Educational Television
  A. Possible Uses in Education

II. Equipment Requirements
  A. Cost of Equipment
  B. Equipment Demonstration
  C. Each Teacher in Turn Learned to Operate Equipment While Practice Sessions Were in Progress.

III. Practice Teaching with Television
    A. Each Teacher to Plan and Teach Two - Ten minute Related Lessons
    B. Each Teacher to Plan and Teach Two - Ten Minute Skill Lessons

* * * * *

Name: Joseph Wittemann
Address: 619 Chatham Road, Columbus, Ohio
Phone:
Position: Assistant Professor
Education: Oceanside H.S. - B.S. State U. of New York - M.A. Ohio State
Teaching Experience: 3 yrs. Ohio St. - Assistant to Dean of Men
1 yr. St. Marys of Spring - Psychology
3 mos. Ohio State - Teaching Associate - Voc. Education

Psychology of the Adolescent

I. Elements in Behavior
    A. Goal, the person has some desire or want
    B. Readiness, the person is able to respond only in certain ways
    C. Situation, the situation presents the person with alternatives requiring choice.
    D. Interpretation, the person interprets the situation
    E. Response, the person does what he thinks will lead to the greater net satisfaction
    F. Consequence, the response is followed by consequences which confirm or contradict the person's interpretation
    G. Reaction to Thwarting, if response does not satisfy the person's wants, he is thwarted, If he doubts that he can reach his goal, he is likely to become emotionally upset.

Motivation of Learner

I. Motivation Defined - Motivation is commonly regarded as stimulating individuals to educative activities.

II. Basic Laws of Learning
    A. Readiness
    B. Exercise
    C. Effect

III. Organic or Internal Motives
    A. Desires
    B. Objectives
    C. Goals
    D. Attitudes
    E. Incentives

IV. Educational Motivation Factors
    A. Calls for greater effort
    B. Makes effort more enjoyable
    C. Makes failures annoying
    D. Stimulates a variety of response.

V. Field trip to Conceptual Center of O.S.U.

* * * * *

Name: Edgar Horner
Address: 111 North Ninth Street, Martins Ferry, O.
Phone:
Position: Supervisor of Trade and Industrial Education
Education: Martins Ferry H.S. - Attending Kent State
Teaching Experience: 5 yrs. Naval Reserve - Machine Repair
3 yrs. Martins Ferry - Machine Trades
Work Experience: 5 yrs. Machinist - Olin-Mathieson
8 yrs. Machinist - Wheeling Steel
2 yrs. App. Machinist - Republic Steel

OUTLINE

Ordering Supplies and Maintaining Equipment

I. Introduction and Objectives
   - A. Familiarity with basic forms and necessary information in ordering
   - B. Knowledge of Chain of Command
   - C. Know that all requisitions must be approved before ordering
   - D. Be familiar with supplies requisitioned through taxpayers money and those through activities funds.
   - E. Familiarity with the Finance Custodians
   - F. Knowledge of Edspecs for ordering equipment
   - G. Knowledge of Inventory systems and maintenance
   - H. Familiarity with maintenance of equipment
   - I. Knowledge of supplies needed for C/R operation
   - J. Knowledge of supplies for Lab operation
   - K. Knowledge of textbook ordering
   - L. Knowledge of Custodial supplies needed.

II. Brief Overview of School Organization
   - A. Community (taxpayer)
   - B. Board of Education
   - C. Superintendent
   - D. Clerk-Treasurer
   - E. Director
   - F. Principal
   - G. Supervisors
   - H. Coordinators
   - I. Teachers
   - J. Students

III. Requisitioning Supplies
   - A. Ordering Transparency and Handouts
      - 1. Basic information required when ordering
      - 2. Cautioning remarks (avoid unnecessary frills)
      - 3. Types of Supplies
      - 4. Ordering on Time
      - 5. Instructor copy

- B. C/R Supplies (Transparency and Handouts)
    - 1. Samples of supplies available
    - 2. Quantity
    - 3. Unit
    - 4. Description
    - 5. Where purchased
- C. Textbook Requisition (Transparency & Handout)
    - 1. Amount
    - 2. Name and Author
    - 3. Copyright Date and Edition
    - 4. Publisher
    - 5. Price
    - 6. Department
- D. Lab Requisition (Transparency and Handouts)
    - 1. Quantity
    - 2. Unit
    - 3. Complete description
    - 4. Manufacturer or Distributor
    - 5. Price per unit and total cost
- E. Janitorial supplies (transparency and handouts)
    - 1. Amount
    - 2. Item
    - 3. These items are generally stock items (soap, towels, brooms, mops, etc.)
    - 4. Department
- F. Application (student participation) (also explain Activity Fund Pay in/out)
    - 1. Requisition C/R supplies
    - 2. Textbooks and workbooks
    - 3. Lab supplies
    - 4. Janitorial supplies
    - 5. To familiarize the student with the idea that these items are items that are needed for the efficient operation of their program.

IV. Inventories (show transparency on inventories)

- A. Running (perpetual) inventory
    - 1. Beginning inventory
    - 2. Accumulated amount of usage
    - 3. Ending inventory
    - 4. Amount to reorder
    - 5. Price per unit
    - 6. Total price
- B. Standard inventory
    - 1. Amount or number on hand
    - 2. Description
    - 3. Manufacturer (or distributor)
    - 4. Serial Number
    - 5. Condition
    - 6. Repurchase value and total value.

V. Maintenance of Equipment

- A. Emphasize proper care of equipment
- B. Utilize Students (part of training) (use student foreman or manager)

- C. Notify Supervisor immediately in writing of faulty equipment, worn out, or in need of repairs.
- D. Observe all Safety precautions (wire grounding, etc.)
- E. Keep equipment free of as much foreign matter as possible
- F. At end of each Lab period shops should be immaculate (students should assist with this)
- G. Keep equipment and accessories stored in dry places.
- H. Use only prescribed tools, accessories, lubricants, wiring, curcuit loads, etc.
- I. Make periodic checks on equipment.
- J. Point out that there is considerable expense involved.
- K. Point out that if the equipment is inoperatable you (the teacher) are out of business.
- L. Point out the cost of bringing in factory men to repair or adjust equipment.

VI. Summarize
  - A. Have students do this.

* * * * *

Name: Edgar Fleenor
Address: 4995 North Dearborn, Indianapolis, Ind. 46205
Phone:
Position:
Education: Salem, Ind. H.S.; B.S. Indiana State; M.A. Indiana State
Teaching Experience: 1 yr. Noblesville, Ind. Jr. High - Industrial Arts
3 yrs. Nobelsville, Ind. H.S. - Industrial Arts
3 yrs. Anderson, Indiana, Apprentice School - Supervisor
3 yrs. Purdue Univ. - Industrial Educator
Work Experience: Electronics - 22mos.

OUTLINE

Manipulative Lesson Plans

Objectives:

1. Emphasize the importance for vocational instructors to prepare manipulative lesson plans.
2. Provide the vocational instructors an exposure to the fundamental knowledge necessary for constructing a manipulative lesson plan.
3. To have each instructor prepare a manipulative lesson plan which he will later teach.

I. Prepared Questions for Asking Participants -
  - A. What is a manipulative lesson plan?
  - B. Who uses a manipulative lesson plan?
  - C. Who prepares a manipulative lesson plan?
  - D. What are the purposes for preparing a manipulative lesson plan?
  - E. What are the component parts of a manipulative lesson plan?
  - F. How does one know what material to include in a manipulative lesson plan? Form additional questions allied to the groups interests which will lead the group into the subject matter to be covered in this session.

II. Present the four steps in the teaching process and apply to a manipulative lesson plan.
    A. Preparation
    B. Presentation
    C. Application
    D. Evaluation

III. The Teacher Prepares to Instruct (Preparation, Step One).
    A. Selects a subject or identifies the lesson
    B. Develops objectives of the lesson
    C. Considers methods of treating interest and motivation
    D. Analyzes needs in terms of materials, equipment and facilities.
    E. Enumerates principal points of emphasis in lesson content
    F. Decides upon teaching methods to be used.
    G. Outlines pertinent points and key questions to be presented.
    H. Develops a guide or criteria for evaluation of session.
    I. Develops lesson plan
    J. The teacher prepares learners for instruction
        1. Gains attention of group
        2. States title of lesson
        3. Clarifies objectives, how they are to be attained, and why the lesson is important.

IV. The Teacher (Presentation, Step Two)
    A. Sticks to the subject or lesson and limits content
    B. Presents content in logical order
    C. Emphasizes the more important ideas or features
    D. Uses appropriate teaching methods and techniques
    E. Shows relationships to job or previous experiences
    F. Explains new terms or words
    G. Encourages discussion
    H. Checks understanding
    I. Uses everday, practical illustrations
    J. Uses visual aids effectively
    K. Speaks in pleasant, well-modulated tones
    L. Maintains poise and bearing
    M. Accepts constructive suggestions
    N. Summarizes lesson at planned intervals

V. Application (Step Three)
    A. The teacher leads discussion on topic presented.
    B. The teacher provides opportunity for learners to discuss practical problems.
    C. The teacher answers questions raised by learners
    D. The teacher provides for practice in applying principles
    E. The teacher provides opportunity for practice of skill
    F. The teacher supervises practice session andhelps learner start off right.
    G. The teacher assigns work to be completed.
    H. The teacher instructs on individual basis, if necessary.

VI. Evaluation or Follow-Up (the Fourth Step)
    A. The teacher evaluates learner progress
        1. Administers and checks written tests

2. Asks questions
3. Encourages learners to explain "how" or "why"
4. Observes practical performances
5. Gives performance tests
6. Gives oral tests
7. Grades projects and problems assigned

Summarizes key points

Makes assignment for the learners

- a. The teacher explains the assignment
- b. The teacher emphasizes the objectives of the assignment
- c. The teacher shows the relationship to current lesson

Evaluation of teaching performance

- a. Attained Objectives
- b. Held attention and interest through the lesson
- c. Set standard for learner performance
- d. Completed lesson within desirable time limits
- e. Motivated learners properly
- f. Stressed important facts and details
- g. Emphasized practical application of lesson
- h. Provides amply opportunity for learners to discuss, question, and participate.
- i. Set suitable pace for the learners
- j. Related new material to past experiences
- k. Used appropriate teaching aids effectively.

* * * * *

Name: William Meyers
Address: Box 454, Willetta Avenue, Martins Ferry, Ohio
Phone:
Position: Machine Trades Instructor
Education: Martins Ferry H.S. - Ohio University (attending)
Teaching Experience: 8 yrs. Martins Ferry - Machine Trades
Work Experience: Machinist - Wheeling Steel - 21 yrs.

OUTLINE

Shop Management and Your Personal Image

- I. Personal Image
  - A. This is the most important asset you can possess.
    - 1. Appearance is impressive to an extent.
      - a. Personal grooming
      - b. Clothes and dress in general
      - c. Shop lab coats or uniforms

B. Obeying all safety rules the same as the student.
  1. This factor is a must if you are to expect the student to follow the safety rules.
    a. Removal of rings, watches, etc. or whatever the safety situations may be.
    b. Safety glasses and face shields .
    c. Any pertinent safety problems.

II. Demonstrations
  A. Planning
    1. No demonstration can be a successful one if thorough and proper planning is not exercised.
    2. Need and Importance
    3. Time involved and interest.
  B. Actual carrying out of the demonstration.
    1. Complete knowledge and confidence of the area.
    2. Strict and firm attention demands of the student.
    3. Uninterrupted progress.
    4. Confined amount of time allotment.

III. General Conduct
  A. The projection of yourself deals a great deal on you own personal behavior.
    1. Professionalism
    2. Speech and Oral behavior
    3. Familarity (Familarity breeds contempt)

IV. Shop Rules and Regulations
  A. Tardiness
    1. Complete elimination of tardiness
      a. Firmness of the school policy in this area.
      b. Personal detention assignment (By the teacher)
  B. Work Beginning
    1. By the time attendance has been checked all students should be disbursed from locker area to all work stations.
    2. Orderly Beginning
      a. Preparation, Lubrication, Checking, etc. of the students assigned work station.
      b. Check out of the tool room or supply area.
      c. Beginning of operations. *
  C. Absentism
    1. Attendance encouragement by job interest.
      a. Correct development of the interest will have the students wanting to come to school.
      b. Alternative, make up time of all time lost due to absence, this must be presented as an obligation.
  D. Horseplay
    1. Unexcusable and not tolerated to any extent.
    2. Work station visitation prohibited.
      a. Leads directly to accidents and job ruination.

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* For the class to make a timetable schedule for their respective shop or lab period (For beginning and quiting)

E. Personal Safety
    1. All safety violations and accidents fall directly back to the instructor.
        a. Prime reason being improper orientation.
        b. Poor enforcement of rules regarding safety.**

F. Student Personal Appearance
    1. Cleanliness
        a. Generally speaking this will not be too great of a problem, bur in some cases it will require some individual attention.
    2. Clothing
        a. Uniformity to a certain respect. Aprons, Shirts, and etc., all of which will eliminate some of the instructor's problems.
    3. Hair
        a. Society has created this problem for you the instructor.
        b. School policy may solve this problem.
        c. Safety hazard.
    4. Beards and other non-conformity problems.
        a. Motivate the students to set their own stardards. (Instructor guidance on setting these standards)

G. Conduct
    1. This is an area which will take care of itself if the proper discipline is established, and all of the rules and regulations are enforced.

H. Care of Tools and Equipment
    1. Tools
        a. Any tools which are necessary for the successful operation of the school shop or lab is the instructors responsibility.
        b. Broken or lost tools must be paid for by the individual or the class, if the situation is due to carelessness or delibrate destruction.
        c. Theft - Nothing in this area is tolerated to any extent. Close control is necessary.
    2. Equipment
        a. Any school equipment is the total responsibility of the instructor. Proper orientation and follow thru is the answer to this factor.
        b. Accessories to all work stations must have close control and accounted for at all times.

V. Collecting and Accounting for Lab Fees
    A. Accounting
        1. Lab fees must be inclusive to begin with.

**For the class compose a list of safety rules which will be applicable to their particular program.

- a. Perferrable on a yearly basis.
- b. Semester plan if the financial problem merits it.
- c. Should include all safety equipment.
- d. Inclusive of all lab needs and materials.
  - 1. General shop materials.
  - 2. Students may buy materials for extra projects.
- e. Should also include classroom needs.
  - 1. Workbooks, Drawing Supplies, etc.

B. Collection
- 1. Lab fees should be taken care of as soon as possible.
  - a. All shop fees should be individually receipted.
  - b. Daily collection of fees should be turned into the supervisor as soon as possible.
    - 1) Instructor is responsible for all monies collected.
  - c. Installment payments sor those which it is best suited for.
  - d. Solutions for those unable to meet obligation of paying their fees.
    - 1) This is something which will have to be worked out with your supervisor if it is part of the school policy.
    - 2) This also must be treated as an obligation.
    - 3) These cases must be kept to a minimum and kept confidential.

VI. Personnel System

A. Shop or Lab Duties
- 1. In any Voc. Lab. each student must have a certain amount of duties connected to his work station.
  - a. Work station care
    - 1) Lubrication, Orderliness, and etc.
    - 2) Accessory care, responsibility of the assigned student that all the accessories are accounted for at all times.
- 2. Supply room or area
  - a. A complete inventory control at all times.
  - b. An accurate check put system.
  - c. Orderly manner of check put of tools and materials.
  - d. Student assignment for this area.
- 3. Lab or Shop Clean-Up
  - a. An organized plan for daily clean up, and also a weekly plan.
  - b. A planned check (Preferrably a double check) to see that each of the plans are carried out throughly.
    - 1) In each of the plans lights, windows, or any other duties must be included.
- 4. Instructors Assistants
  - a. In orientation of these positions, they are not to believe they have any authority other than to assist.
  - b. This area must follow a planned cycle.
  - c. Orientate students that they must first go to these assistants.
  - d. Have a consistant manner of communication between assistant and instructor.
- 5. Emergency Measures
  - a. This area is very simple, but very important, it deals with fire drills, accidents, and other situations that are uncommon.

VII. Selection of Jobs
  A. In vocational education with two years offered, this makes each year an entirely different one. And each year has to be planned as such. Of course, the first year must offer a good foundation in the respective field, with all the basic material covered well.

     The second year must create a challenge, as well as a more advance offering of material. Both of these, if properly presented, stimulate the student's interest.

- 1. Progression
  - a. Basic operational problems.
    - 1) This is a must to cover all work stations
  - b. Simple job development.
    - 1) Offered to all students after basic operational problems.
    - 2) For continued use for those students who need more experience.
  - c. Complex job development.
    - 1) For those students which are capable and must be challenged to hold their interest.
- 2. Sources
  - a. A development of a personal file of jobs.
  - b. State Vocational Job Manuals
  - c. Testbook type of Job Manuals
  - d. Student creations
    - 1) Closely controlled and guided by the structor.
- 3. Emergency job fulfillment
  - a. Offered to the student who the instructor feels can do the job.
    - 1) An asset to develop student confidence.
  - b. Sources
    - 1) School
    - 2) Private community business firms
    - 3) Citizens

VIII. Rotation of Equipment
- A. Planning
  - 1. Total cycling of all work stations for the year.
    - a. Preplanned schedule
      - 1) Fixed rotation record chart *
    - b. Placement due to individual abilities.
    - c. Necessary rotation (Required fulfillment of work stations)
    - d. Close student observation
      - 1) Friends who are work station neighbors make poor industrious students.
- B. Controlled Planning
  - 1. Placement due to job requirements.
    - a. After the year is well into progress, some jobs are complex and require various work stations.

* For the Class to spend some time and thought for the development of this chart.

   2. Some students may become somewhat of a specialist at certain stations, and can perfect their skills to a higher degree if they are exposed to some areas more often.
   3. Emergency placement.
      a. Due to job priority.

IX. Use of Job Sheets
 A. Instructors Job Sheets
   1. The job sheet is an important to the instructor as it is to the student.
      a. Weekly job plan sheets.
         1) Work station *
         2) Job assignment (This sheet aids the instructor in determining the amount of time the student has spent on a particular job.)*
      b. Rotation plan sheets.*
      c. Material order slips.*
         1) Material control
      d. Grade sheets (Proper emphasis will motivate the student)
         1) Daily Grade Sheet.*
         2) Weekly Grade Sheet.*
 B. Student Duty Sheets
   1. Any of the sheets used in this area aids in lab control.
      a. Instructors assistants duty sheets.
         1) Foreman (or similar position) *
         2) Maintenance (Or similar position) *
         3) Toolroom (Or supply room) *
 C. Student Planning Sheets
   1. If the instructor is to expect the student to do any planning or research of the assigned job this area is a must.
      a. Job plan sheet.
         1) This serves as a complete guide developed tnd followed by a student in completing the assigned job.
      b. Blueprints
      c. Sketches

X. Securing Jobs (Supervisory Approved)
 A. This is an area which is controlled by the amount of demand for jobs in the particular locationa or area. This is also primarily one for the second year instructor with exceptions.
   1. Available Contacts
      a. General Work in the specific field.
      b. Work which requires a degree of ability.
   2. Selection of the Qualified Student
      a. Preserving the contact.
      b. Guidance of the student as to what is expected of him by the employers.

* For the class to develop sheets which will aid them in the future.

        1) Conduct and attitude
        2) Aggressiveness
    c. Student needs
        1) Family financial position
3. Requested Aid
    a. Student
    b. Employer
4. Unrequested Aid
    a. Student
        1) Fulfilling the request of the employers
    b. Employer
        2) Contact of employers for jobs for students who you feel will benefit in one way or another.

D-4 Consultants Detailed Resume and Topical Outlines - University of Toledo

EPDA Project
For The Preparation of
Trade and Industrial Education Teachers
University of Toledo

Consultant Personal Data and Outlines of Presentation

July 14, 1969

Name: Mr. Harry E. Tolles, Jr.
Address: 3454 Glynn Drive, Toledo, Ohio 43614
Phone: (419) 385-2443
Position: Teacher-Educator, U. of Toledo (EPDA Staff Member)
Education: B.Voc.Ed. Trade and Industrial Education - U. of Toledo, 1966 - M.Ed. Guidance and Couseling - U. of Toledo, 1967 - Post-Masters School Administration and Higher Education - U. of Toledo
Teaching Experience: Trade and Industrial Education Assis. Supervisor, Penta Co. J.V.S. - Vocational Electronic Technology Instructor, Macomber Vocational High School.
Work Experience: Electronic Field Engineer, Goodyear Aircraft Corp., Akron, O. - Electronic Technician, Kaiser Electronics Corp., Toledo, O. - Television Service Technician, B & H Electronic Corp., Toledo, O. - Naval Electronic Technician.

OUTLINE

I. Introduction - Director
    A. Staff
    B. Participants

II. Welcoming Remarks - Dean, College of Education

III. Registration - Records office personnel.

IV. Pre-Service Institute schedule - Director
    A. Handout - "EPDA Schedule"
    B. Handout - "Folder"
    C. Handout - "Trade and Industrial Notebooks"
    D. Handout - "Information Sheet - Testbooks"

V. Housing arrangements and Bookstore

Lunch

VI. Overview of Vocational Education
    A. Overhead Transparancy - "Organization Chart"
    B. "Information Sheet #1"

VII. Ohio Trade & Industrial Education Service
    A. Overhead Transparancy - "Organization Chart"

VIII. Trade & Industrial Teacher Education
    A. Old plan
    B. Recent plan
    C. Pilot plan (EPDA)

IX. Principles of T & I Education
    A. "Information Sheet #2"
    B. "Information Sheet #3"

X. Qualities of a good instructor
    A. Overhead transparancy sequence

XI. Assignment
    A. "Assignment Sheet #1"

July 15, 1969

Name: Mr. Harry Tolles - Information same as above for July 14, 1969.

OUTLINE

I. Determining what to teach
    A. Experience
    B. Hand tools
    C. Machinery
    D. Equipment
    E. Products
    F. Services
    G. Materials

II. "Assignment Sheet #2"
    A. List above

III. Blocks
    A. Overhead transparancy - "Toolmaker Blocks:
    B. "Assignment Sheet #3" - List Blocks

IV. Course outlines
    A. School
    B. State

V. Block Base

VI. Operations within block base

VII. Related within block base

VIII. Work Session
    A. "Assignment Sheets 2, 3 & 4"

July 16, 1969

Name: Carl V. Gorman
Address: 944 Martindale Drive, Tallmadge, Ohio 44278
Phone: (216) 633-5719
Position: Director-Coordinator EPDA Project - State of Ohio
Education: Kent State University - B. Ind. Arts
Kent State University - M. Ed.
Leadership Development Intern Program Voc. Ed. State of Ohio
Teaching Experience: Akron Public Schools - Vocational Mach. Shop - 4 yrs
MDTA - Akron Public Schools - 1 yr.
Kent State University - Teacher Educator - 1 yr.
Work Experience: Machinist - 9 yrs.

OUTLINE

I. Operations

II. Jobs

III. Factors influencing Job Selection

IV. Frequency Chart
    A. Overhead transparancy "Frequency Chart - Sheetmetal"
    B. "Assignment Sheet #5"
    C. Revised "Frequency Chart - Sheetmetal"

V. Work Session
    A. Revised "Assignment Sheet #5"

July 17, 1969

Consultants in Shop Organization and Management

Name: Edna Summers
Address: 309 Meadow Lane, Walbridge, Ohio
Phone: 693-5690
Position: Cosmetology Inst., Whitmer High School
Education: High School - 13 Voc. Ed. Maj. & Eng. Min.
Teaching Experience: 2 years of teaching at Whitmer
Work Experience: Cosmetology exper. - 15 years

Name: Dick Shelley
Address: 831 Crystal Ave., Findlay, Ohio
Phone: 422-2904
Position: Machine Trade Teacher, Findlay High School
Education: Bach. of Voc. Ed. - University of Toledo
Teaching Experience: Sylvania High - 2 yrs. - Findlay High - 17 yrs.
Work Experience: 7 yrs. Machine trade exper. - 3 yrs. machinist mate - Navy

Name: George B. Langell
Address: 6717 Denison Dr., Whitehouse, Ohio 43571
Phone: 877-5785
Position: Drafting Instructor - Penta County J.V.S.
Education: 15 yrs. - Voc. Ed. Major
Teaching Experience: 4 yrs. - Penta Co. J.V.S.
Work Experience: 13 yrs. Drafting Exper.

Name: Lawrence Szymanski
Address: 1838 Barrows St., Toledo, Ohio 43613
Phone: 475-3246
Position: Radio & TV Instructor - Macomber
Education: BSEE - Electronics Engineering
Teaching Experience: 10 yrs. Macomber, Radio & TV --T.U. (part time) 10 yrs.
Work Experience: 1 yr. Toledo Edison - 4 yrs. self-employed

Name: Ross C. Graves
Address: 1510 Watova Road, Toledo, Ohio 43614
Phone: 385-3845
Position: Teacher - Carpentry - Sylvania High School
Education: 16 yrs. Voc. Ed. Maj.
Teaching Experience: 5 yrs. Sylvania High School
Work Experience: 11 yrs. Construction

Name: Loren D. Steiner
Address: 206 E. Bigelow Ave., Findlay, Ohio 45840
Phone: 422-8087
Position: Auto Lab Instructor, Findlay High School
Education: 17 yrs. Voc. Ed. Maj. - Bach. of Voc. Ed.
Teaching Experience: 9 yrs. Findlay High School
Work Experience: 15 yrs. Auto Tech. - 4 yrs. and Service Manager - 11 yrs.

OUTLINE

I. Shop Organization
  A. Opening the shop
  B. Shop procedure
  C. Closing the shop
  D. After closing the shop
  E. Shop personnel system
  F. "Assignment Sheet #6"

II. T & I Teacher Consultants
  A. Consultant for each trade group - informal small group discussion with consultant

July 18, 1969

Staff Instructors

Name: Paul H. Muntz
Address: 1736 Eileen Road, Toledo, Ohio 43615
Phone: 531-6357
Position: Instructor - Voc. Ed. - University of Toledo
Education: A. B. - Capital University
M. Ed. - University of Toledo

Teaching Experience: OJT Trainer for WPB - 3 yrs.
Industrial Leadership Consultant, T & I Education Service, Division of Vocational Education - 8 yrs.
Teacher Educator, University of Toledo - 3 yrs.
Work Experience: Iron Molder - 3 yrs.
Supervisor - 6 yrs.
Assistant General Foreman and Production Supervisor - 6 yrs.

Name: Roy A. Miller
Address: 1221 Stilwell, Fremont, Ohio 43420
Phone: 332-2507
Position: Teacher Educator - University of Toledo
Education: M. of Ed. - Kent State University
Teaching Experience: 3 yrs. - Palmyra Local - Science and math
1 yr. - South East Principal
10 yrs. - Fremont City Schools - Machine Shop
6 yrs. - Fremont City Schools - T & I Supervisor
2 yrs. - Vanguard Voc. & Tech. Center - T & I Supervisor
Work Experience: Machinist - 10 yrs.

Name: Henry S. Pucilowski*
Address: 3458 Woodley Ct., Toledo, Ohio 43606
Phone: 536-9610
Position: Instructor - Vocational Education - University of Toledo
Education: B. Voc. Ed.
Teaching Experience: Sylvania High School - Electronics Inst. - 3 yrs.
Sylvania High School - T & I Supervisor - 5 yrs.
Sylvania High School - Director Voc. Ed. - 1 yr.
Work Experience: U.S.N. - Chief Electronic Technician - 21 yrs.
Electronic Supply Office - Equipment Specialist - 1 yr.

OUTLINE

I. School Visitation
    A. "Assignment Sheet #7"

July 22, 1969

Name: Leonard Kingsley
Address: 4243 Whiteford Road, Toledo, Ohio 43623
Phone: 882-3357
Position: Director - Penta Co. J.V.S.
Education: BS - Purdue U. - MA Ball State University - Post Masters - Toledo University
Teaching Experience: 25 yrs. Penta Co. - Agriculture Counseling Administrator
Work Experience: 6 yrs. 3-Kraft Foods - 3 yrs. Overseas

OUTLINE

I. The Learning Process

II. Motivation

III. Teaching Methods

IV. Learning Environment

Name: Henry S. Pucilowski - Information same as above for July 18, 1969

OUTLINE

I. Teaching Manipulative Lessons
  A. The "Allen Four-Step" Method
  B. Steps and Key Points
  C. Sample Manipulative Lesson - "The Signwriters Cup"

II. Handouts
  A. "Job Breakdown Sheet" Blank
  B. "Information Sheet #11"
  C. "How to Instruct" Card
  D. "Job Breakdown Sheet #1"
  E. "Job Breakdown Sheet #2"
  F. "Sample Lesson Plan - Manipulative Lesson"

III. Work Session
  A. Prepare a manipulative lesson plan

July 23, 1969

Name: Henry S. Pucilowski - Information same as above for July 18, 1969

OUTLINE

I. "Safety Examination" - Pre-test

II. Safety Education
   A. Physical conditions
   B. First Aid
   C. Student personal protection
   D. General safety precautions

III. Work Session
   A. Safety plan
   B. Manipulative lesson plans

July 24, 1969

Name: Franklin P. Koontz
Address: 2646 Claredale, Toledo, Ohio
Phone: 479-5079
Position: Television Producer/Director - Univ. of Toledo
Education: B. Ed. - Bowling Green State Univ.
M. Broadcasting - Ohio State University
Teaching Experience: Ohio State University - 2 yrs. - Public Address and Survey of Broadcasting
Work Experience: Asst. Super. of Instructional Television - Pennsylvania State University - 2 yrs.

OUTLINE

I. Video Tape Recording of Manipulative Lessons

II. Critique of VTR Lessons

July 25, 1969

Name: Carl V. Gorman - Information same as above for July 16, 1969

OUTLINE

I. Operation Sheets

II. Job sheets

III. Job plan sheets

IV. Handouts
  A. "Advantages of Instruction Sheets"
  B. "Disadvantages of Instruction Sheets"
  C. "Operation Sheet Format"
  D. "Job Sheet Format"

V. Work Session
  A. Prepare a job sheet
  B. Prepare an operation sheet
  C. Manipulative lesson plans

July 28, 1969

Name: Roy A. Miller - Information same as above for July 18, 1969

I. Coorelating Shop and Related Instruction

II. Related
  A. Technical
  B. General
  C. Guidance

III. Teaching Related
  A. Plan the lesson
  B. "Job Breakdown Sheet #3"
  C. Teach the lesson
  D. "Job Breakdown Sheet #4"

IV. Sample related lesson - "Scientific Notation"
  A. Handout lesson plan - "Scientific Notation"

V. Lecture Method

VI. Modified lecture method

VIII. Work Session
  A. Select first related lesson
  B. Prepare a related lesson plan

July 29 & 30, 1969

Name: Franklin P. Koontz - Information same as above for July 24, 1969

OUTLINE

I. Video tape recording of manipulative lessons

II. Critique of VTR

July 31, 1969

Name: Carl V. Gorman - Information same as above for July 16, 1969

OUTLINE

I. Methods of Group Instruction

II. Questioning Technique

III. Presentation of Material

IV. Format for Developmental Method

V. Handout
  A. "Questioning Techniques"
  B. "The Technique of Questioning"

VI. Work Session
  A. Prepare related lesson plans
  B. Prepare "key" questions for lesson plans

August 1, 1969

Name: Carl V. Gorman - Information same as above for July 16, 1969

OUTLINE

- I. Information Sheets
  - A. Definition
  - B. Why use
  - C. When to use
  - D. How to write
  - E. How to use

- II. Assignment Sheets
  - A. Definistion
  - B. Why use
  - C. When to use
  - D. How to write
  - E. How to use

- III. Handout
  - A. "Information Sheet Format"
  - B. "Assignment Sheet Format"

- IV. Work Session
  - A. Write an information sheet
  - B. Write an assignment sheet
  - C. Prepare additional related and manipulative lesson plans

August 4, 1969

Name: Alfred Behrendsen
Address: 2911 Sunset Lane, Sandusky, Ohio 44870
Phone: 626-9300
Position: Drafting Inst. at Sandusky High School
Education: BS-BGSU, M. Ed. from Ohio - courses at Kent and Univ. of Toledo
Teaching Experience: 10 yrs. Wooster, Tiffin, Eastwood and 4 yrs. Sandusky
Work Experience: 5 yrs. draftsman

Name: Donald H. Rex
Address: 2556 Georgetown Ave., Toledo, Ohio 43613
Phone: 472-2850
Position: Teacher, Macomber Voc. - Auto Mechanics

Education: High School & 3
Teaching Experience: 17 yrs. - 14 yrs. Macomber, 1 yr. Woodward, 2 yrs. Penta
Work Experience: 16 yrs. Auto Mechanic

Name: Robert A. Rower
Address: 8056 Erie St., Sylvania, Ohio 43560
Phone: 882-3881
Position: Inst. T & I Carp. - Sylvania High School
Education: High School plus 1
Teaching Experience: 8 yrs. Sylvania School
Work Experience: 13 yrs. carpentry and millwork

Name: Opal Stryczek
Address: 3711 Hoiles, Toledo, Ohio
Phone: 474-0342
Position: Dental Asst. Inst. - Clay Senior High
Education: BS - Voc. Ed.
Teaching Experience: 6 yrs. Clay High - 12 yrs. Elementary Ed.
Work Experience: 3½ yrs. - Dental Assistant

Name: Beverly St. Germain
Address: 461 S. Goodyear, Oregon, Ohio 43616
Phone: 698-2737
Position: Teacher-Whitney Voc., Cosmetology
Education: High School plus 1
Teaching Experience: 2 yrs. Whitney
Work Experience: 16 yrs. Cosmetology

Name: Rick Hoover
Address: R. R. #1, Portage River South Rd., Elmore, Ohio
Phone: 862-4840
Position: Teacher - Electronics
Education: Asst. Degree Bachelors
Teaching Experience: 5 yrs. Macomber and Penta
Work Experience: 12 yrs. Electrician - self-employed

OUTLINE

I. Panel Discussion of Discipline Case Studies
  A. Experienced shop teacher panel
  B. Case studies of 1968-69 school year

II. Handout
  A. "How to Maintain Good Discipline"

III. Work Session
  A. Prepare basic shop/class rules
  B. Prepare additional related and manipulative lesson plans

August 5 & 6, 1969

Name:	Homer E. Salley
Address:	3465 Goddard Rd., Toledo, Ohio 43606
Phone:	479-2003
Position:	Professor of Audio/Visual Educational Television
Education:	B. A. - Mississippi College M. A. - Texas Christen University Ph. D. - Indiana University
Teaching Experience:	Head Audio/Visual Dept. - Louisville Public Library - 2 yrs. Audio/Visual Director & Asst. Prof. - University of Louisville - 4 yrs. Audio/Visual Director & Prof. - University of Toledo - 9 yrs.

Name:	Roger Kennedy
Address:	3418 Gallatin Rd., Toledo, Ohio 43606
Phone:	531-4380
Position:	Educational Media Production Specialist
Education:	B. Music - Ohio Weslyan University M. Ed. - Kent State University
Teaching Experience:	Warrensville Heights - Music & Audio/Visual - 10 yrs. University of Toledo - 5 yrs.

OUTLINE

I. Introduction to audio/visual aids

II. Production of visual aids
   A. Lettering
   B. Mounting
   C. Displaying

III. Overhead Transparancies
   A. Preparation
   B. Utilization

IV. Slides
   A. Preparation
   B. Utilization

V. Motion Pictures
   A. Projector operation
   B. Indexes & catalogues

August 7, 1969

Name: Carl V. Gorman - information same as above for July 16, 1969

OUTLINE

I. Methods of Individual Instruction
   A. The Bird System
   B. Handout - "Dr. Bird System of Study"

II. Tape recording of "The Poor Scholar's Soliloquy"

III. Work Session - open - continue on any or all previous assignments

August 8, 1969

Name: Paul H. Muntz - Information same as above for July 18, 1969

OUTLINE

I. The Conference Method
  A. Advantages
  B. When to use
  C. How to use
  D. How to conclude
  E. Sample conference

II. Handout - Information Sheets
  A. "Advantages of a Conference vs. a Meeting"
  B. "The Conference"
  C. "Steps in Leading a Conference"
  D. "Conference Rules"
  E. "Conference Leading"

August 11 & 12, 1969

Name: Franklin P. Koontz - Information same as above for July 24, 1969

OUTLINE

I. Video tape recording of related lessons

II. Critique of VTR lessons

August 13, 1969

Name: Mr. Harry Tolles - Information same as above for July 14, 1969

OUTLINE

I. Ohio T & I Achievement Test Program

II. Testing Terminology

III. Achievement Test Characteristics
  A. Validity

- B. Reliability
- C. Objectivity
- D. Discrimination
- E. Comprehensive
- F. Useability

IV. Major Characteristics of Essay & Objective Tests

V. Constructing Test Items

VI. Handout
- A. "Suggestions for Constructing Multiple Choice Items"
- B. "Guides for Multiple Choice Items"
- C. "Test Service Notebook #13"

VII. Work Session
- A. Construct test items

August 14, 1969

Name: Mr. Harry Tolles - Information same as
above for July 14, 1969

OUTLINE

I. Review of test items from previous work session

II. Grading procedures
- A. Weighting
- B. Homework
- C. Class participation
- D. Quizzes
- E. Reports
- F. Jobs
- G. Tests
- H. Attitude

III. Work Session
- A. Continue item construction

August 15, 1969

Name: Robert A. Bernhoft
Address: 3852 Garrison, Toledo, Ohio 43613
Phone: 475-6980
Position: Asst. Professor of Education - Univ. of Toledo
Education: B. Ed. - Syracuse University
M. Ed. - Syracuse University
Ed. D. - Syracuse University
Teaching Experience: High School Social Studies - 8 yrs.
High School Guidance Counselor - 6 yrs.
Conselor Education - University of Toledo - 3 yrs.

OUTLINE

I. Student-counselor relationships

II. Advising Students

III. Student records

IV. Work Session - open - continue on any or all previous assignments

August 18, 1969

Name: Roy A. Miller - Information same as above for July 18, 1969

OUTLINE

I. Ordering Supplies
    A. Procedure
    B. Forms
    C. Lead Time

II. Inventory
    A. Procedure
    B. Forms
    C. Responsibility

III. Maintenance of shop equipment
   A. Responsibility
   B. Procedure

IV. Work Session - open - continue on any or all previous assignments

August 19 & 20, 1969

Name: Don Terry Scott
Address: 439 W. Third St., Perrysburg, Ohio 43551
Phone: 874-4894
Position: Teacher Educator - University of Toledo
Education: Bowling Green State University - B.S. in Ed.
Ohio State University - M. Educ.
Teaching Experience: Galion High School - Drafting Inst. - 2 yrs.
Galion High School - D.C.T. Coordinator - 6 yrs.
Galion High School - Dir. of Voc. Ed. & Ind. Arts - 2 yrs.
University of Toledo - Teacher Educator - 3 yrs.
Work Experience: Lithography and Letterpress Printing

OUTLINE

I. Assignment to Home School
   A. "Assignment Sheet #8"
   B. Teacher Educator Assignments

August 21, 1969

Name: Don Terry Scott - Information same as above for August 19 & 20, 1969

OUTLINE

I. Professionalism
   A. Definition
   B. How to practice
      1. Overhead sequence

- C. Professional Organizations
    - 1. OVA
    - 2. AVA
    - 3. OEA
    - 4. NEA
    - 5. AFT
    - 6. Local Organization

II. Industrial Arts/Vocational Education Relationships
- A. Handout - "Statement of the Industrial Arts and Trade and Industrial Education Joint Committee of the American Vocational Association"

III. Local School Organization
- A. Types of Schools
- B. Duties of Administrative Personnel
    - 1. Superintendent
    - 2. Principals
    - 3. Directors
    - 4. Supervisors
    - 5. Coordinators

August 22, 1969

Name: Roy A. Miller - Information same as above for July 18, 1969

OUTLINE

I. Teacher Certification
- A. Old
- B. New
- C. Pilot (EPDA)

II. Closing Forms
- A. OE 7214

III. Information Sheet - "Seminar Sessions"

IV. Institute Evaluation

V. Final Examination